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Supporting Information

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Combinatorial Synthesis of Functionalized 1,3-Thiazine Libraries Using a Combined Polymer-Supported Reagent/Catch-and-Release Strategy**

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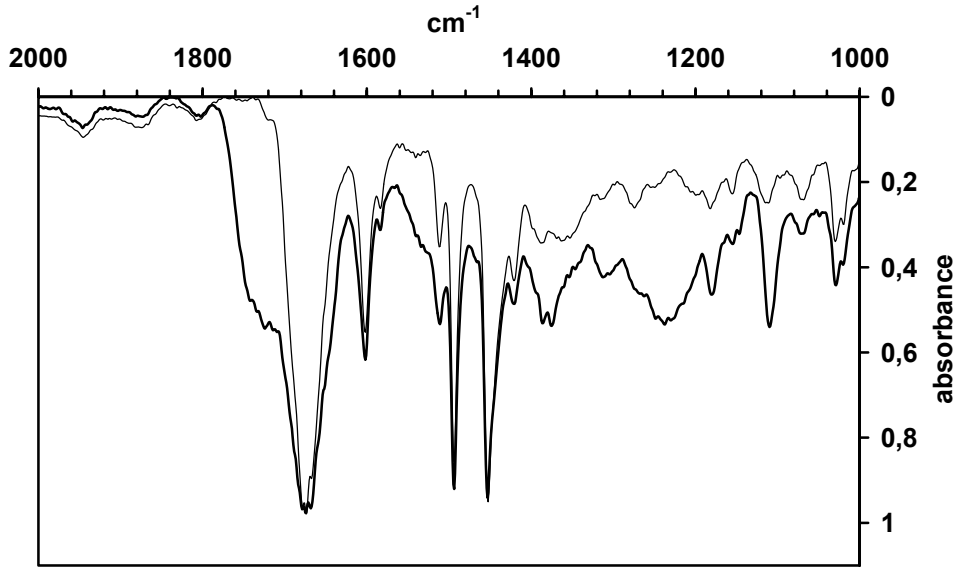
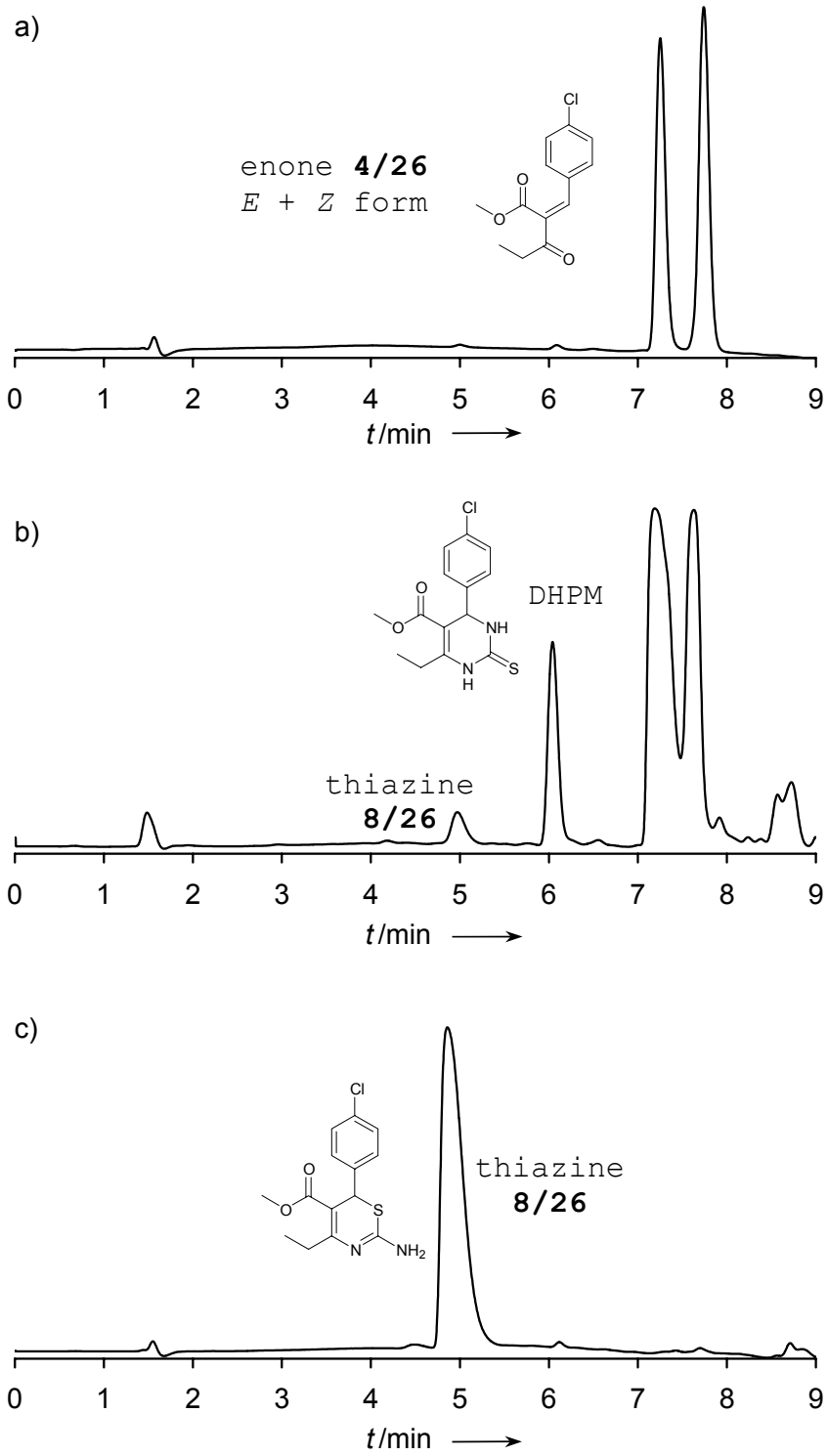


On-bead FT-IR analysis of the reaction of diisopropyl azodicarboxylate (DIAD) with scavenger resin **11**. Thin line: resin **11**; thick line: **11** after reaction with DIAD. The carbonyl groups at ca 1700-1710 cm^{-1} reflect the ester bonds in **13** or **14**.



Analytical HPLC of thiazine synthesis. a) after Knoevenagel condensation (*E*/*Z* isomers); b) wash step, traces of product **8/26** at t = 5min, dihydropyrimidinethione (DHPM) byproduct at t = 6 min; c) final product **8/26** after resin release.

General Procedures.

^{1}H-NMR spectra were recorded on a Bruker AMX 360 at 360 MHz in the solvents indicated. Chemical shifts (δ) are expressed in ppm downfield from TMS as internal standard. The letters s, d, t, q and m are used to indicate singlet, doublet, triplet, quadruplet and multiplet. Polymer-supported reactions were carried out on an Advanced Chemtech Synthesizer in Teflon frits or in appropriate 10 mL sealed glass vials. Merrifield resin (1.7 mmolg^{-1}, Cat. No. 63866, Lot&Filling Code 390481/1 43599) and DOWEX 50X2 (4.8 mmolg^{-1}, Lot&Filling Code 428749/1 25001) were purchased from Fluka and polymer-supported piperazine (1.1 mmolg^{-1}, Lot. A26054) from Novabiochem. Analytical HPLC analysis was performed on a Shimadzu LC-10 system, equipped with LC10-V T(AP) pumps, an autosampler (Sil-10AXL) and a dual wavelength UV detector set at 215 and 280 nm. Analytical liquid chromatographic separations were carried out on a C18 reversed phase analytical column, LiChrospher 100 Rp-18 (E. Merck, 119 × 3 mm, particle size 5 μm) at 25°C using a mobile phase A: water/acetonitrile 90:10 (v/v) + 0.1 % TFA and B: acetonitrile + 0.1 % TFA (HPLC solvents were purchased from Acros with gradient grade quality; TFA was of analytical reagent grade, Aldrich) at a flow rate of

0.5 mL/min. The following gradient was applied : linear increase from solution 30 % B to 100% B in 7 min, hold at 100% solution B for 2 min. Analytical LC-MS measurements were carried out on a HP 1100 Series LC/MSD System using a Zorbax Eclipse XDB-C8,150 x 4.6 mm (particle size 5μm). Mobile phase: A: 0.1% formic acid in water, B: 0.1 % formic acid in acetonitrile and C: methanol. Gradient: C constant at 4% (v/v), linear increase from 18 to 78% B in 10 min, hold at 78% B for 4 min, re-equilibration of the column at the initial settings for 6 min; Flow rate: 1 mL/min; UV detection at 220 nm.

Polymer-supported Knoevenagel catalyst **3**

The commercially available polymer-bound piperazine (1.1 $mmolg^{-1}$, Novabiochem) was modified by neutralization with excess glacial acetic acid to give the diacetate.

Polymer-supported Sulfonic acid **6**

Commercially available (Fluka) ion-exchange resin DOWEX 50X2 (200-400 mesh, 2% DVB, loading stated as 4.8 mmol/g dry resin) was washed prior to use with 1M hydrochloric acid, water and methanol to remove impurities and dried afterwards (50°C, 10 mbar).

Polymer-supported Ethylenediamine **11**

Commercially available Merrifield resin (Fluka, 200-400 mesh, 1% DVB, 1.7 $mmolg^{-1}$), dissolved in dioxane (7 mL/g resin), was treated with ethylenediamine (0.75 g/g resin, 7.5 equiv) and heated at 80°C for 18 h. After cooling the resin was filtered, washed (dioxane, THF/water 1:1 + 10% triethylamine, THF, MeOH, dichloromethane, MeOH) and dried at 60°C and 10 mbar. The scavenger resin has a loading of 1.63 $mmolg^{-1}$ (>99% conversion as determinated by weight gain).

Typical procedure for the Mitsunobu alkylation (outlined for compound **12/1**).

2-amino-4-methyl-6-phenyl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester **8/1** (9.6 mg, 34.8 μmol) and trifluoroacetic anhydride (10 μL, 71.9 μmol) in dry dichloromethane (1mL) were stirred at room temperature for 1 h. After evaporation to dryness the residue was dissolved in THF (1 mL) and stirred together with diisopropyl azodicarboxylate (27.4 μL, 146 μmol), triphenylphosphine (36.4 mg, 146 μmol) and 3-methyl-butan-1-ol (15 μL, 150 μmol) for 12 h at room temperature. Then dry DOWEX 50X2 **6** (45 mg, 188 μmol) was added and stirring continued for 15 min. After filtration polymer-bound ethylenediamine **11** (45

mg, 73 μmol, 1% DVB, 3.27 mmol Ng^{-1}) was added to the filtrate and slightly agitated for 12 h. Afterwards the scavenger resin was filtered off and 25% aqueous ammonia (260 μL, 3.64 mmol) added. After another 3 hours the mixture was evaporated to dryness, the residue dissolved in methanol (1 mL) and dry DOWEX 50X2 **6** (20 mg, 83.6 μmol) added. Following agitation of 15 min the resin was washed (dioxane, MeOH, dichloromethane) and release of the product was accomplished by addition of triethylamine (150 μL) and methanol (0.45 mL). After shaking for 20 minutes the cocktail was filtered and the resin washed with 10% triethylamine in methanol (2× 0.4 mL). The combined filtrates were evaporated to dryness to give 4-methyl-2-(3-methyl-butylamino)-6-phenyl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester **12/1** (4.6 mg, 13.3 μmol, 38%).

1,3-Thiazines 8 by solution-phase synthesis (Table 1).

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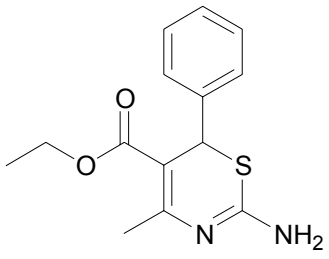

2-Amino-4-methyl-6-phenyl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.24 (t, 3H), 2.52 (s, 3H), 4.16 (q, 2H), 4.30 (b, 2H, NH), 5.35 (s, 1H), 7.19-7.26 (m, 5H); MS(pos. APCI) m/z: 277.3 [M+1], (M=276.09).

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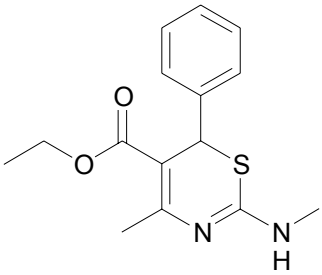

4-Methyl-2-methylamino-6-phenyl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.23 (t, 3H), 2.56 (s, 3H), 2.98 (s, 3H), 4.14 (q, 2H), 4.92 (b, 1H, NH), 5.31 (s, 1H), 7.20-7.27 (m, 5H); MS(pos. APCI) m/z: 291.3 [M+1], (M=290.11).

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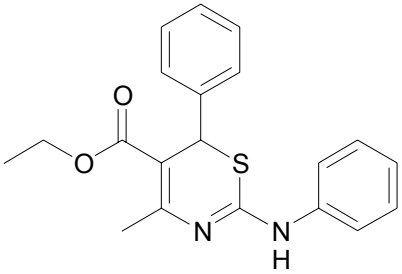

4-Methyl-6-phenyl-2-phenylamino-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.25 (t, 3H), 2.53 (s, 3H), 4.17 (q, 2H), 5.34 (s, 1H), 7.08-7.13 (m, 2H), 7.25-7.31 (m, 8H); MS(pos. APCI) m/z: 353.2 [M+1], (M=352.12).

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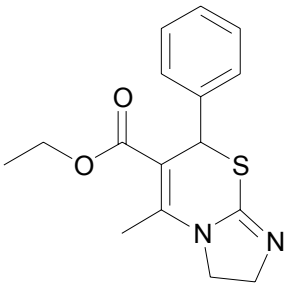

5-Methyl-7-phenyl-2,3-dihydro-7*H*-imidazo[2,1-b][1,3]thiazine-6-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.24 (t, 3H), 2.62 (s, 3H), 3.84-3.94 (m, 2H), 3.95-4.01 (m, 2H), 4.16 (q, 2H), 5.39 (s, 1H), 7.23-7.27 (m, 5H); MS(pos. APCI) m/z: 303.2 [M+1], (M=302.11).

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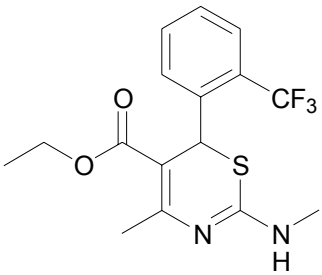

4-Methyl-2-methylamino-6-(2-trifluoromethyl-phenyl)-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, [D_6]acetone): δ=1.10 (t, 3H), 2.53 (s, 3H), 2.98 (s, 3H), 4.02 (q, 2H), 5.63 (s, 1H), 6.82 (b, 1H, NH), 7.22 (d, 1H), 7.44 (t, 1H), 7.55 (t, 1H), 7.71 (d, 1H); MS(neg. APCI) m/z: 357.2 [M-1], (M=358.10).

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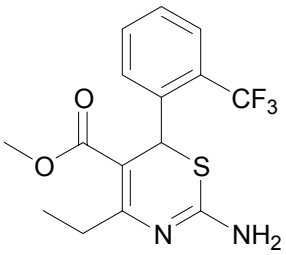

2-Amino-4-ethyl-6-(2-trifluoromethyl-phenyl)-6*H*-[1,3]thiazine-5-carboxylic acid methyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.26 (t, 3H), 2.91 (q, 2H), 3.62 (s, 3H), 5.69 (s, 1H), 7.22 (d, 1H), 7.35 (t, 1H), 7.45 (t, 1H), 7.65 (d, 1H); MS(neg. APCI) m/z: 343.0 [M-1], (M=344.08).

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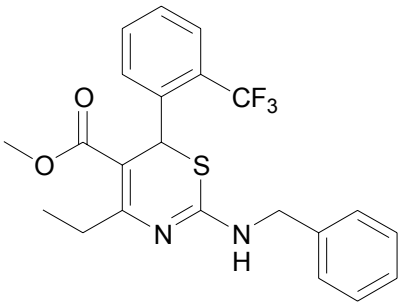

2-Benzylamino-4-ethyl-6-(2-trifluoromethyl-phenyl)-6*H*-[1,3]thiazine-5-carboxylic acid methyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.26 (t, 3H), 2.98 (q, 2H), 3.62 (s, 3H), 4.53-4.80 (m, 2H), 4.98 (b, 1H, NH), 5.68 (s, 1H), 7.18-7.41 (m, 8H), 7.64 (d, 1H); MS(neg. APCI) m/z: 433.3 [M-1], (M=434.13).

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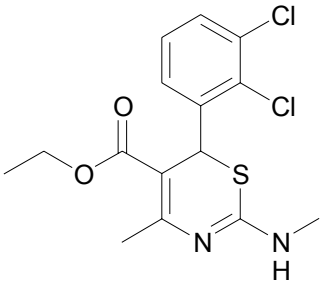

6-(2,3-Dichloro-phenyl)-4-methyl-2-methylamino-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $[D_6]$DMSO): δ=1.09 (t, 3H), 2.80 (s, 3H), 3.33 (s, 3H), 4.00 (q, 2H), 5.58 (s, 1H), 6.87 (d, 1H), 7.29 (t, 1H), 7.52 (d, 1H), 7.89 (b, 1H, NH); MS(neg. APCI) m/z: 357.0 [M-1], (M=358.03).

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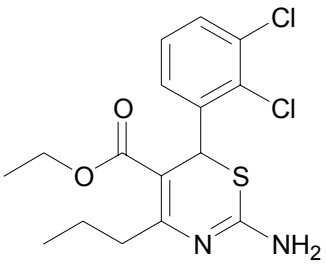

2-Amino-6-(2,3-dichloro-phenyl)-4-propyl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.03 (t, 3H), 1.21 (t, 3H), 1.72 (h, 2H), 2.88 (dt, 2H), 4.12 (q, 2H), 5.76 (s, 1H), 6.92 (d, 1H), 7.10 (t, 1H), 7.35 (d, 1H), 7.50 (b, NH); MS(neg. APCI) m/z: 371.0 [M-1], (M=372.05).

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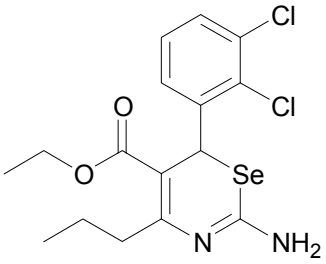

2-Amino-6-(2,3-dichloro-phenyl)-4-propyl-6*H*-[1,3]selenazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.03 (t, 3H), 1.24 (t, 3H), 1.73 (h, 2H), 2.89 (dt, 2H), 4.14 (q, 2H), 5.85 (s, 1H), 6.89 (d, 1H), 7.10 (t, 1H), 7.32 (d, 1H); MS(pos. APCI) m/z: 421.0 [M+1], (M=419.99).

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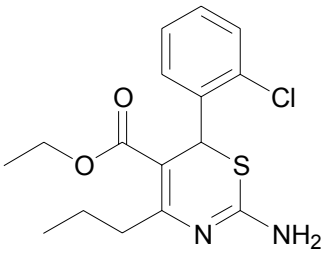

2-Amino-6-(2-chloro-phenyl)-4-propyl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, [D_6]acetone): δ=0.99 (t, 3H), 1.16 (t, 3H), 1.71 (h, 2H), 2.83 (t, 2H), 4.06 (q, 2H), 5.71 (s, 1H), 7.04 (dd, 1H), 7.21-7.28 (m, 2H), 7.44 (dd, 1H); MS(pos. APCI) m/z: 339.2 [M+1], (M=338.09).

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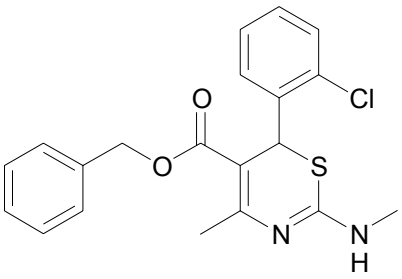

6-(2-Chloro-phenyl)-4-methyl-2-methylamino-6*H*-[1,3]thiazine-5-carboxylic acid benzyl ester: ^{1}H NMR (360 MHz, [D_6]DMSO): δ=2.80 (s, 3H), 3.37 (s, 3H), 5.04 (dd, 2H), 5.59 (s, 1H), 6.91 (m, 1H), 7.11 (t, 1H), 7.24-7.27 (m, 5H), 7.35 (t, 1H), 7.46 (dd, 1H), 7.91 (q, 1H, NH); MS(neg. APCI) m/z: 385.2 [M-1], (M=386.09).

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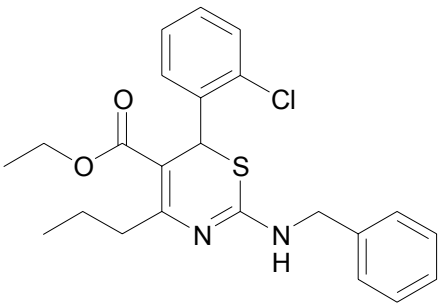
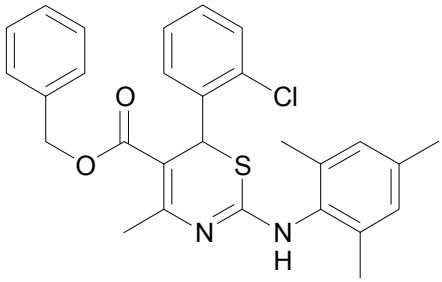
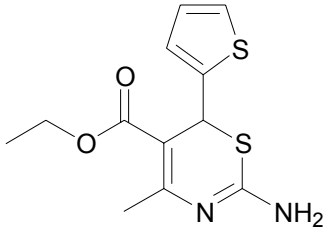


2-Benzylamino-6-(2-chloro-phenyl)-4-propyl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.02 (t, 3H), 1.21 (t, 3H), 1.72 (h, 2H), 2.95 (t, 2H), 4.12 (q, 2H), 4.57-4.80 (m, 2H), 5.00 (b, 1H, NH), 5.76 (s, 1H), 7.03 (dd, 1H), 7.14-7.29 (m, 7H), 7.37 (dd, 1H); MS(neg. APCI)

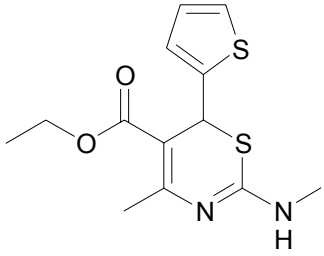
m/z: 427.0 [M-1], (M=428.13).

8/14 

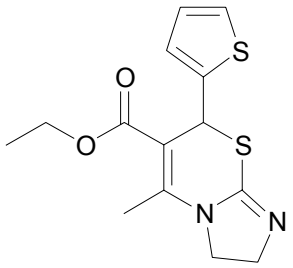
6-(2-Chloro-phenyl)-4-methyl-2-(2,4,6-trimethyl-phenylamino)-6*H*-[1,3]thiazine-5-carboxylic acid benzyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.42 (s, 3H), 2.10 (s, 3H), 2.24 (s, 3H), 2.32 (s, 3H), 5.06 (s, 2H), 5.68 (s, 1H), 6.72 (s, 1H), 6.83 (s, 1H), 7.11-7.36 (m, 9H); MS(pos. APCI) m/z: 491.2 [M+1], (M=490.15).

8/15 

2-Amino-4-methyl-6-thiophen-2-yl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.30 (t, 3H), 2.46 (s, 3H), 4.22 (q, 2H), 5.61 (s, 1H), 6.85-6.87 (m, 2H), 7.13 (d, 1H); MS(pos. APCI) m/z: 283.3 [M+1], (M=282.05).

8/16 

4-Methyl-2-methylamino-6-thiophen-2-yl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.29 (t, 3H), 2.51 (s, 3H), 3.05 (s, 3H), 4.21 (q, 2H), 4.85 (b, 1H, NH), 5.59 (s, 1H), 6.85 (m, 2H), 7.11 (d, 1H); MS(neg. APCI) m/z: 295.2 [M-1], (M=296.07).

8/17 

5-Methyl-7-thiophen-2-yl-2,3-dihydro-7*H*-imidazo[2,1-b][1,3]thiazine-6-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.31 (t, 3H), 2.58 (s, 3H), 3.84-3.94 (m, 2H), 3.95-4.06 (m, 4H), 4.21 (q, 2H), 4.85 (b, 1H, NH), 5.63 (s, 1H), 6.88 (t, 1H), 6.95 (d, 1H), 7.13 (d, 1H);

MS(pos. APCI) m/z: 309.2 [M+1], (M=308.07).

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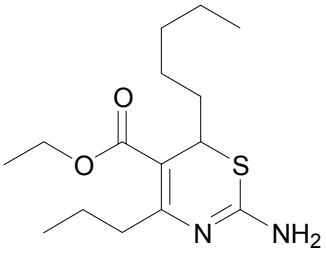

2-Amino-6-pentyl-4-propyl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=0.88-0.97 (m, 6H), 1.24-1.37 (m, 9H), 1.53-1.63 (m, 4H), 2.69 (m, 2H), 4.05 (t, 1H), 4.22 (q, 2H); MS(pos. APCI) m/z: 299.3 [M+1], (M=298.17).

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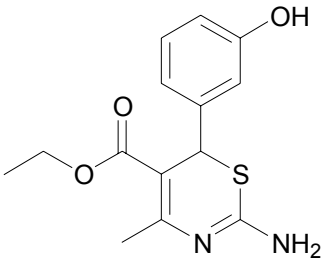

2-Amino-6-(3-hydroxy-phenyl)-4-methyl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.26 (t, 3H), 2.19 (s, 1H, OH), 2.51 (s, 3H), 4.18 (q, 2H), 5.34 (s, 1H), 6.66 (s, 1H), 6.72 (dd, 1H), 6.79 (d, 1H), 7.18 (t, 1H); MS(pos. APCI) m/z: 293.2 [M+1], (M=292.09).

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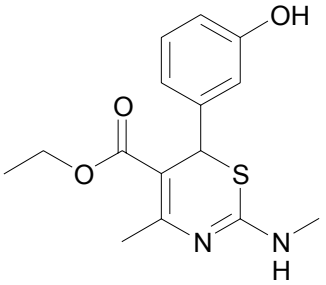

6-(3-Hydroxy-phenyl)-4-methyl-2-methylamino-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.25 (t, 3H), 2.19 (s, 1H, OH), 2.54 (s, 3H), 2.99 (s, 3H), 4.16 (q, 2H), 5.29 (s, 1H), 6.66-9.71 (m, 2H), 6.78 (d, 1H), 7.13 (t, 1H); MS(neg. APCI) m/z: 305.2 [M-1], (M=306.10).

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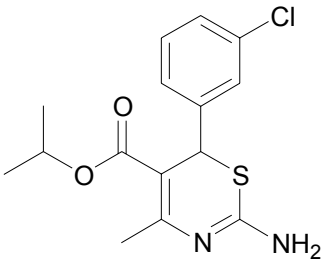

2-Amino-6-(3-chloro-phenyl)-4-methyl-6*H*-[1,3]thiazine-5-carboxylic acid isopropyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.16 (d, 3H), 1.27 (d, 3H), 2.49 (s, 3H), 5.04 (sep, 1H), 5.28 (s, 1H), 7.08 (m, 1H), 7.18-7.20 (m, 3H); MS(pos. APCI) m/z: 325.2 [M+1], (M=324.07).

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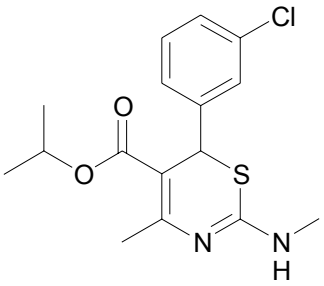

6-(3-Chloro-phenyl)-4-methyl-2-methylamino-6*H*-[1,3]thiazine-5-carboxylic acid isopropyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.15 (d, 3H), 1.27 (d, 3H), 2.54 (s, 3H), 3.00 (s, 3H), 5.03 (sep, 1H), 5.26 (s, 1H), 7.06 (m, 1H), 7.16-7.18 (m, 3H); MS(pos. APCI) m/z: 339.2 [M+1], (M=338.09).

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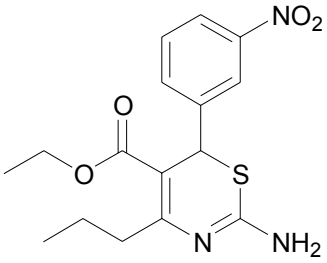

2-Amino-6-(3-nitro-phenyl)-4-propyl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.02 (t, 3H), 1.26 (t, 3H), 1.71 (p, 2H), 2.82 (m, 1H), 2.89 (m, 1H), 4.18 (q, 2H), 5.41 (s, 1H), 7.44 (t, 1H), 7.52 (d, 1H), 8.08 (d, 2H); MS(neg. APCI) m/z: 348.2 [M-1], (M=349.11).

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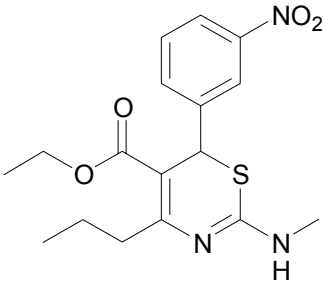

2-Methylamino-6-(3-nitro-phenyl)-4-propyl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.02 (t, 3H), 1.26 (t, 3H), 1.73 (p, 2H), 2.92 (t, 2H), 2.99 (s, 3H), 4.17 (q, 2H), 5.38 (s, 1H), 7.42 (t, 1H), 7.50 (d, 1H), 8.06-8.10 (t, 2H); MS(neg. APCI) m/z: 362.2 [M+1], (M=363.13).

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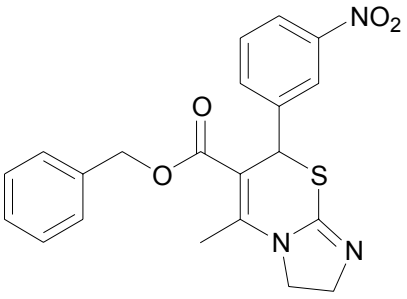

5-Methyl-7-(3-nitro-phenyl)-2,3-dihydro-7*H*-imidazo[2,1-b][1,3]thiazine-6-carboxylic acid benzyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=2.68 (s, 3H), 3.92-4.02 (m, 4H), 5.16 (s, 2H), 5.45 (s, 1H), 7.24-7.31 (m, 5H), 7.44 (t, 1H), 7.57 (d, 1H), 8.08 (d, 1H); MS(neg. APCI) m/z: 408.3 [M-1], (M=409.11).

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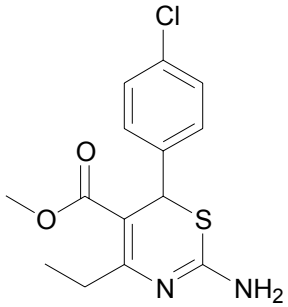

2-Amino-6-(4-chloro-phenyl)-4-ethyl-6*H*-[1,3]thiazine-5-carboxylic acid methyl ester: ^{1}H NMR (360 MHz, [D$_6$]acetone): δ=1.16 (t, 3H), 2.87-2.94 (m, 2H), 3.62 (s, 3H), 5.34 (s, 1H), 6.85 (b, 2H, NH), 7.22 (d, 2H), 7.29 (d, 2H); MS(pos. APCI) m/z: 311.2 [M+1], (M=310.05).

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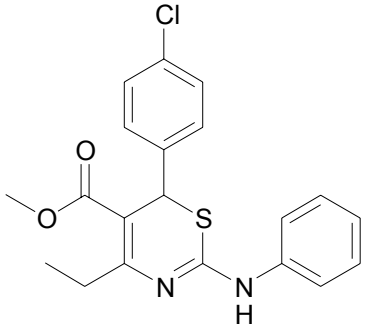

6-(4-Chloro-phenyl)-4-ethyl-2-phenylamino-6*H*-[1,3]thiazine-5-carboxylic acid methyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.28 (t, 3H), 2.85 (m, 1H), 2.95 (m, 1H), 3.71 (s, 3H), 5.31 (s, 1H), 6.85 (b, 2H, NH), 7.09-7.17 (m, 4H), 7.23-7.32 (m, 5H); MS(neg. APCI) m/z: 385.2 [M-1], (M=386.09).

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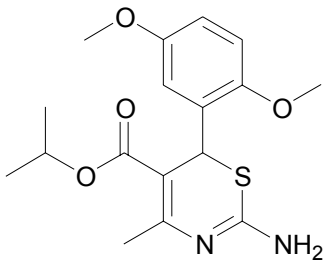

2-Amino-6-(2,5-dimethoxy-phenyl)-4-methyl-6*H*-[1,3]thiazine-5-carboxylic acid isopropyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.10 (d, 3H), 1.23 (d, 3H), 2.50 (s, 3H), 3.69 (s, 3H), 3.85 (s, 3H), 4.97 (sep, 1H), 4.97 (b, 1H, NH), 5.68 (s, 1H), 6.53 (d, 1H), 6.71 (dd, 1H), 6.79 (d, 1H); MS(neg. APCI) m/z: 349.2 [M-1], (M=350.13).

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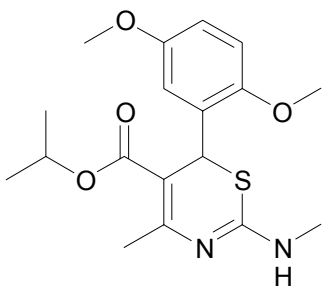

6-(2,5-Dimethoxy-phenyl)-4-methyl-2-methylamino-6*H*-[1,3]thiazine-5-carboxylic acid isopropyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.09 (d, 3H), 1.23 (d, 3H), 2.55 (s, 3H), 2.95 (s, 3H), 3.69 (s, 3H), 3.85 (s, 3H), 4.62 (b, 1H, NH), 4.96 (sep, 1H), 5.67 (s, 1H), 6.53 (d, 1H), 6.71 (dd, 1H), 6.79 (d, 1H);

MS(neg. APCI) m/z: 363.2 [M-1], (M=364.15).

1,3-Thiazines 12 by N-alkylation under Mitsunobu conditions (Table 2).

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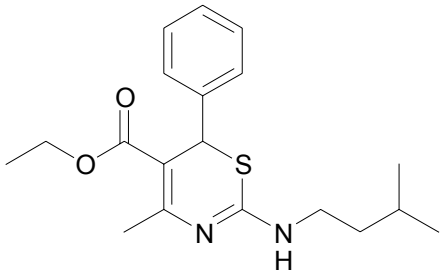

4-Methyl-2-(3-methyl-butylamino)-6-phenyl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=0.86 (t, 6H), 1.25 (t, 3H), 1.43 (m, 2H), 1.63 (m, 1H), 2.61 (s, 3H), 3.75 (t, 2H), 4.19 (q, 2H), 5.15 (s, 1H), 7.23-7.26 (s, 5H); MS(pos. APCI) m/z: 347.2 [M+1], (M=346.17).

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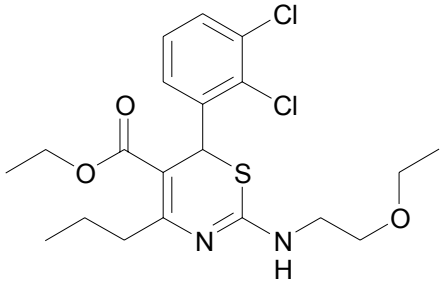

6-(2,3-Dichloro-phenyl)-2-(2-ethoxy-ethylamino)-4-propyl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.06 (t, 3H), 1.20 (t, 3H), 1.27 (t, 3H), 1.59 (m, 2H), 2.92 (m, 2H), 3.52 (q, 2H), 3.50-3.60 (m, 4H), 4.15 (q, 2H), 5.46 (s, 1H), 7.08 (d, 1H), 7.15 (t, 1H), 7.35 (d, 1H); MS(pos. APCI) m/z: 445.2 [M+1], (M=444.10).

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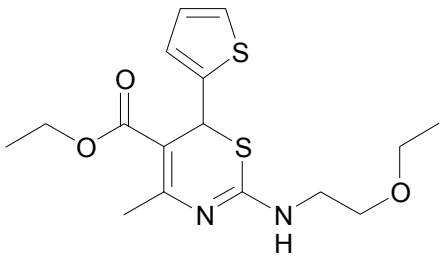

2-(2-Ethoxy-ethylamino)-4-methyl-6-thiophen-2-yl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=1.14 (t, 3H), 1.30 (t, 3H), 2.64 (s, 3H). 3.37 (m, 2H), 3.51 (m, 2H), 4.00 (m, 1H), 4.23 (q, 2H), 4.49 (m, 1H), 5.61 (s, 1H), 6.87 (t, 1H), 6.94 (d, 1H), 7.16 (d, 1H); MS(pos. APCI) m/z: 355.2, (M=354.11).

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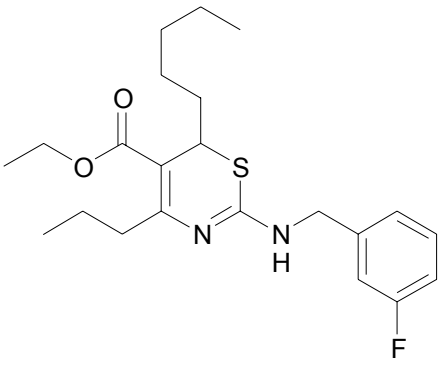

2-(3-Fluoro-benzylamino)-6-pentyl-4-propyl-6*H*-[1,3]thiazine-5-carboxylic acid ethyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=0.86-0.93 (m, 6H), 1.26-1.33 (m, 9H), 1.48-1.68 (m, 4H), 2.65 (m, 1H), 2.98 (m, 1H), 3.81 (t, 1H), 4.20 (q, 2H), 5.02 (d, 1H), 5.54 (d, 1H), 6.95 (m, 2H), 7.03 (d, 1H), 7.47 (t, 1H); MS(pos. APCI) m/z: 407.2 [M+1], (M=406.21).

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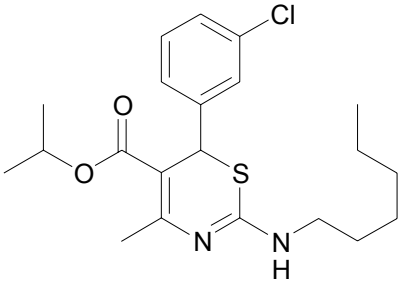

6-(3-Chloro-phenyl)-2-hexylamino-4-methyl-6*H*-[1,3]thiazine-5-carboxylic acid isopropyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=0.87 (t, 3H), 1.18-1.30 (m, 10H), 1.30-1.55 (m, 2H), 1.58 (m, 2H), 2.61 (s, 3H), 3.68 (m, 1H), 4.33 (m, 1H), 5.08 (m, 2H), 7.19-7.23 (m, 4H); MS(neg. APCI) m/z: 407.3 [M-1], (M=408.16).

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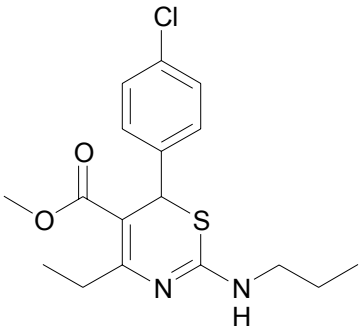

6-(4-Chloro-phenyl)-4-ethyl-2-propylamino-6*H*-[1,3]thiazine-5-carboxylic acid methyl ester: ^{1}H NMR (360 MHz, $CDCl_3$): δ=0.77 (t, 3H), 1.23 (t, 3H), 1.40 (m, 2H), 1.63 (b, 1H, NH), 2.76 (sextet, 1H), 3.29 (sextet, 1H), 3.48 (m, 1H), 3.74 (s, 3H), 4.39 (m, 1H), 5.04 (s, 1H), 7.22-7.28 (dd, 4H); MS(pos. APCI) m/z: 353.2 [M+1], (M=352.10).