Toward a global characterization of the phosphoproteome in prostate cancer cells: Identification of phosphoproteins in the LNCaP cell line
Prostate Cancer Cells
  ↓
Protein Extraction (Trizol)
  ↓
Protein Digestion
  ↓
SPE (SepPak C18)
  ↓
Flowthrough
  ↓
SPE (Oligo R3)
  ↓
Fraction A
  ↓
LC-MS/MS (m/z 400-1600)
  ↓
Database Search
  ↓
Eluate
  ↓
Phosphopeptide Enrichment (IMAC)
  ↓
SPE (ZipTip C18)
  ↓
Eluate
  ↓
Flowthrough
  ↓
SPE (Oligo R3)
  ↓
Fraction B
  ↓
LC-MS/MS with GPF
1. m/z 400-1600
2. m/z 400-1000
3. m/z 400-1000+600-1600
  ↓
Database Searches
  ↓
Database Search
  ↓
Fraction C
  ↓
LC-MS/MS (m/z 400-1600)
  ↓
Database Search
(A) Subcellular Localization

- Nucleus: 33%
- Cytoplasm: 10%
- Membrane: 4%
- Multiple: 22%
- Other: 6%
- Unclassified: 25%

(B) Functional Categories

- RNA Processing and Transcription Regulation: 35%
- Signal Transduction: 17%
- Translation: 14%
- DNA Processing: 3%
- Unknown: 2%
- Metabolic Pathways: 5%
- Cell Cycle: 9%
- Cell Structure: 15%
- Other: 6%