

## erasin (X-25): sc-133555

### BACKGROUND

Erasin, also known as UBXD2 (UBX domain containing protein 2) or UBXDC1, is an endoplasmic reticulum (ER) and nuclear envelope membrane protein. Expressed in a variety of tissues, such as brain, placenta, heart, liver, prostate, kidney, pancreas, lung and skeletal muscle, erasin contains one UBX domain and participates in the clearing of ERAD (endoplasmic reticulum-associated protein degradation) substrates. The UBX domain of erasin is responsible for mediating its direct interaction with VCP (valosin-containing protein), an AAA-ATPase molecular chaperone. In response to ER stress, erasin expression is induced. The knockdown of erasin expression leads to the inhibition of ERAD, suggesting an important function of erasin in the ERAD pathway. In addition, erasin may be involved in Alzheimer's disease, as it is known to accumulate in neurofibrillary degenerating neurons in patients with Alzheimer's disease.

### REFERENCES

1. Nagase, T., et al. 1996. Prediction of the coding sequences of unidentified human genes. VI. The coding sequences of 80 new genes (KIAA0201-KIAA0280) deduced by analysis of cDNA clones from cell line KG-1 and brain. *DNA Res.* 3: 321-329, 341-354.
2. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611216. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Cras-Méneur, C., et al. 2004. An expression profile of human pancreatic islet mRNAs by serial analysis of gene expression (SAGE). *Diabetologia* 47: 284-299.
4. Liang, J., et al. 2006. Characterization of erasin (UBXD2): a new ER protein that promotes ER-associated protein degradation. *J. Cell Sci.* 119: 4011-4024.
5. Yamauchi, S., et al. 2007. Differential expression pattern of UBX family genes in *Caenorhabditis elegans*. *Biochem. Biophys. Res. Commun.* 358: 545-552.
6. Veerla, S., et al. 2008. Promoter analysis of epigenetically controlled genes in bladder cancer. *Genes Chromosomes Cancer* 47: 368-378.

### CHROMOSOMAL LOCATION

Genetic locus: UBXL4 (human) mapping to 2q21.3; Ubxl4 (mouse) mapping to 1 E4.

### SOURCE

erasin (X-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic erasin peptide of human origin.

### STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

### PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

### APPLICATIONS

erasin (X-25) is recommended for detection of erasin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for erasin siRNA (h): sc-94539, erasin siRNA (m): sc-144920, erasin shRNA Plasmid (h): sc-94539-SH, erasin shRNA Plasmid (m): sc-144920-SH, erasin shRNA (h) Lentiviral Particles: sc-94539-V and erasin shRNA (m) Lentiviral Particles: sc-144920-V.

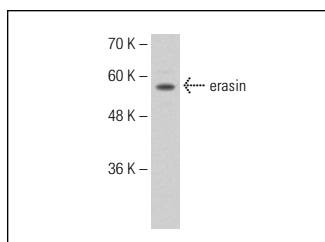
Molecular Weight of erasin: 57 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, mouse thymus extract: sc-2406 or KNRK whole cell lysate: sc-2214.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz<sup>™</sup>: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

### DATA



erasin (X-25): sc-133555. Western blot analysis of erasin expression in Hep G2 whole cell lysate.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.