

ST14/Matriptase Antibody

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 80, 95	Source/Isotype: Rabbit	UniProt ID: #Q9Y5Y6	Entrez-Gene Id: 6768
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

ST14/Matriptase Antibody recognizes endogenous levels of total ST14/Matriptase protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asn280 of human ST14/Matriptase protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Suppressor of tumorigenicity 14 protein (ST14), also known as matriptase, is a type II transmembrane protease (1,2). It is highly expressed in epithelia cells and important for the differentiation and homeostasis of epithelium (3). ST14 is synthesized as a single-chain precursor, and cleaved first at Gly149 in endoplasmic reticulum or Golgi. The resulting N-terminal and C-terminal fragments are non-covalently associated, and interact with hepatocyte growth factor activator inhibitor 1 (HAI-1), which facilitates the transportation of ST14 to the plasma membrane. Cell surface ST14 can be activated by autocleavage at Arg614 though an incompletely understood mechanism. HAI-1 inhibits activated ST14, and HAI-1 and ST14 complex can be shed from cell surface (4,5). In different context, ST14 has been reported either as a tumor suppressor or as a tumor promoter (6-8)

Background References

1. Kim, M.G. et al. (1999) *Immunogenetics* 49, 420-8.
2. Lin, C.Y. et al. (1999) *J Biol Chem* 274, 18231-6.
3. Oberst, M.D. et al. (2003) *J Histochem Cytochem* 51, 1017-25.
4. List, K. et al. *Mol Med* 12, 1-7.
5. Bugge, T.H. et al. (2007) *Front Biosci* 12, 5060-70.
6. Kosa, P. et al. (2012) *Oncogene* 31, 3679-95.
7. Sales, K.U. et al. (2015) *Oncogene* 34, 4664-72.
8. Ko, C.J. et al. (2015) *Cancer Res* 75, 2949-60.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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