

Product Information

Anti-EDEM3 (C-terminal)

produced in rabbit, IgG fraction of antiserum

Catalog Number **E8781**

Product Description

Anti-EDEM3 (C-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 869-882 of human EDEM3 (GenelD: 80267), conjugated to KLH via an N-terminal cysteine residue. The corresponding sequence is identical in mouse and rat. Whole serum is purified using protein A immobilized on agarose to provide the IgG fraction of antiserum.

Anti- EDEM3 (C-terminal) recognizes human, mouse and rat EDEM3). Antibody applications include immunoblotting (~120 kDa) and immunoprecipitation. Detection of the EDEM3 band by immunoblotting is specifically inhibited with the immunizing peptide.

EDEM3 (ER degradation enhancer, mannosidase alpha-like 3), a soluble EDEM homolog, enhances glycoprotein endoplasmic reticulum-associated degradation (ERAD) and mannosyl trimming.¹ Proteins that fail to fold in the ER are transferred from the ER to the cytosol, where they are destroyed by the ubiquitin-proteasome system.^{2,3} Quality control in the ER is regulated by productive folding and ERAD mechanisms. Accelerated refolding and degradation of unfolded proteins are induced in response to ER stress by a transcriptional program termed the unfolded protein response (UPR).⁴ Three EDEM homologs, EDEM1, EDEM2 and EDEM3 have been identified, which are transcriptionally upregulated upon ER stress by the activated IRE1/Xbp-1 branch.⁵ In mammalian cells, EDEM1 is localized to the ER, mainly as a soluble glycoprotein, interacts with the COOH-terminus of calnexin and lacks mannosidase activity.⁶ Overexpression of EDEM1 accelerates ERAD by promoting the release of terminally misfolded glycoproteins from calnexin.^{6,8} EDEM3 accelerates ERAD of misfolded glycoproteins as well, but in contrast to EDEM1, it greatly stimulates mannosidase trimming *in vivo*.¹

Reagent

Supplied as a solution in 0.01 M PBS, pH 7.4, containing 15 mM sodium azide as preservative.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working dilution of 1:1,000-1:2,000 is recommended using a whole extract of human HEK-293T cells; a working dilution of 1:500-1:1,000 is recommended using a whole extract of rat PC12 cells.

Immunoprecipitation: A working amount of 1-2 µL is recommended using mouse 3T3 cell lysates.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working dilution by titration test.

References

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