

## EDEM (C-19): sc-27391

### BACKGROUND

Proteins expressed in the endoplasmic reticulum (ER) are subjected to a tight quality control. Terminally misfolded proteins in the endoplasmic reticulum (ER) are retrotranslocated to the cytoplasm and degraded by proteasomes through a mechanism known as ER-associated degradation (ERAD). EDEM (ER degradation-enhancing  $\alpha$ -mannosidase-like) protein is a type II membrane protein that localizes to the ER and is directly involved in ERAD. EDEM targets misfolded glycoproteins for degradation in an N-glycan-dependent manner and extracts misfolded glycoproteins from the calnexin cycle. The human EDEM gene maps to chromosome 3p26.1.

### CHROMOSOMAL LOCATION

Genetic locus: EDEM1 (human) mapping to 3p26.1; Edem1 (mouse) mapping to 6 E2.

### SOURCE

EDEM (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of EDEM of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27391 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

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

### RESEARCH USE

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

### APPLICATIONS

EDEM (C-19) is recommended for detection of EDEM of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

EDEM (C-19) is also recommended for detection of EDEM in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for EDEM siRNA (h): sc-43745, EDEM siRNA (m): sc-143293, EDEM shRNA Plasmid (h): sc-43745-SH, EDEM shRNA Plasmid (m): sc-143293-SH, EDEM shRNA (h) Lentiviral Particles: sc-43745-V and EDEM shRNA (m) Lentiviral Particles: sc-143293-V.

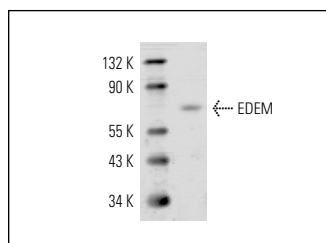
Molecular Weight of EDEM: 74 kDa.

Positive Controls: SK-N-MC cell lysate: sc-2237.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### DATA



EDEM (C-19): sc-27391. Western blot analysis of EDEM expression in SK-N-MC whole cell lysate.

### SELECT PRODUCT CITATIONS

- Zuber, C., et al. 2007. EDEM1 reveals a quality control vesicular transport pathway out of the endoplasmic reticulum not involving the COPII exit sites. *Proc. Natl. Acad. Sci. USA* 104: 4407-4412.
- Calì, T., et al. 2008. Segregation and rapid turnover of EDEM1 by an autophagy-like mechanism modulates standard ERAD and folding activities. *Biochem. Biophys. Res. Commun.* 371: 405-410.
- Bernasconi, R., et al. 2008. A dual task for the Xbp1-responsive OS-9 variants in the mammalian endoplasmic reticulum: inhibiting secretion of misfolded protein conformers and enhancing their disposal. *J Biol. Chem.* 283: 16446-16454.
- Le Fourn, V., et al. 2009. Basal autophagy is involved in the degradation of the ERAD component EDEM1. *Cell. Mol. Life Sci.* 66: 1434-1445.
- Bernasconi, R., et al. 2012. Role of the SEL1L:LC3-I complex as an ERAD tuning receptor in the mammalian ER. *Mol. Cell* 46: 809-819.

### PROTOCOLS

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

**MONOS**  
Satisfaction  
Guaranteed

Try **EDEM (D-1): sc-377394**, our highly recommended monoclonal alternative to EDEM (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **EDEM (D-1): sc-377394**.