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Product Information

Anti-SEL1L (N-terminal)
produced in rabbit, affinity isolated antibody

Product Number **S3699**

Product Description

Anti-SEL1L (N-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to a sequence at the N-terminal of human SEL1L (GeneID: 6400), conjugated to KLH. The corresponding sequence differs by 5 amino acids in mouse and 6 amino acids in rat. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-SEL1L (N-terminal) recognizes human SEL1L. The antibody may be used in various immunochemical techniques including immunoblotting (~100 kDa), immunoprecipitation, and immunofluorescence. Detection of the SEL1L band by immunoblotting is specifically inhibited by the immunizing peptide.

SEL1L, a mammalian orthologue of yeast Hrd3p, is involved in protein dislocation from the mammalian ER.[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] Quality control in the ER is regulated by productive folding and ER-associated degradation (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).[3,4] SEL1L is a component of ERAD and is upregulated in response to ER stress.[4] Reduction in SEL1L levels leads to the accumulation of class I MHC heavy chains in the ER and perturbs the degradation of a misfolded substrate, RI_{332}.[1] SEL1L is a highly conserved membrane protein, which contains a large luminal region composed of several repetitive structural and functional domains that might be involved in misfolded proteins recognition or in chaperones binding.

SEL1L physically interacts with the E3 ubiquitin ligase HRD1. The SEL1L/HRD1 ubiquitin-ligase complex forms a large ER multiprotein complex required for dislocation of misfolded glycoproteins with Derlin-1, -2 and p97.[1, 5] Additional components of this degradation complex were identified in mammalian cells including AUP1, UBXD8, UBC6e and OS9.[6] SEL1L is highly expressed in the pancreas and is involved in cell growth and cancer progression.[7]

Reagent

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

Antibody concentration: ~1.0 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the 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 at –20 °C. 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 antibody concentration of 0.5–1.0 μg/mL is recommended using whole extracts of human MCF-7 cells.

Immunoprecipitation: a working amount of 2–5 μg is recommended using a lysate of MCF-7 cells.

Immunofluorescence: a working antibody concentration of 2–4 μg/mL is determined using human MCF-7 cells.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

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5. Lilley, B.N., and Ploegh, H.L., *Proc. Natl. Acad. Sci. USA*, **102**, 14296-14301 (2005).
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