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Product Information

Anti-ERGIC-53/p58

Developed in Rabbit
Affinity Isolated Antibody

Product Number **E 1031**

Product Description

Anti-ERGIC-53/p58 is developed in rabbit using as immunogen a synthetic peptide corresponding to amino acids 158-170 of rat p58 with N-terminal added cysteine, conjugated to KLH. The corresponding sequence is identical in mouse and human. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-ERGIC-53/p58 recognizes rat, mouse, and human ERGIC-53/p58. Applications include immunoblotting (~58 kDa) and immunofluorescence. Detection of the ERGIC-53/p58 band by immunoblotting is specifically inhibited with the immunizing peptide.

ERGIC-53 is a type I membrane marker protein associated with the ER-Golgi intermediate compartment (ERGIC).¹ The rat homolog is known as p58.^{2,3} ERGIC, a dynamic membrane system composed of a constant average number of tubulo-vesicular clusters in the vicinity of ER exit sites, mediates protein transport from ER to Golgi.^{4,5} ERGIC-53 contains a cytosolic diphenyl-alanine motif that interacts with COP II vesicle coats, and a C-terminal dilysine ER retrieval motif that interacts with COP I vesicle coats, leading to constitutive recycling in the early secretory pathway.⁶ ERGIC-53 is a mannose-specific lectin required for efficient exit of some glycoproteins from the ER including cathepsin C, cathepsin Z, and blood coagulation factors V and VIII.⁵ Mutations in ERGIC-53 are responsible for combined deficiency of coagulation factors V and VIII, an autosomal recessive bleeding disorder.⁷

Reagent

The antibody is supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 1% bovine serum albumin and 15 mM sodium azide as preservative.

Antibody Concentration: Approx. 0.5 mg/ml

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS 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. Storage in frost-free freezers is also not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

By immunoblotting, a working antibody concentration of 0.5-1.0 µg/ml is recommended using a whole cell extract of mouse NIH-3T3 cells and a chemiluminescent detection reagent.

By indirect immunofluorescence, a working antibody concentration of 5-10 µg/ml is recommended using human HepG2 and rat NRK cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration test.

References

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