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ProductInformation

Anti-RALT/MIG-6 (PE-16)
Developed in Rabbit
Affinity Isolated Antibody

Product Number **R 3028**

Product Description

Anti-RALT/MIG-6 (PE-16) is developed in rabbit using a synthetic peptide corresponding to amino acids 395-410 of rat RALT, conjugated to KLH via an N-terminal added cysteine residue. This sequence is conserved in human and mouse (one amino acid difference). The antibody is affinity purified on the immunizing peptide immobilized on agarose.

Anti-RALT/MIG-6 (PE-16) specifically recognizes RALT by various immunochemical applications including immunoblotting (approx. 55 kDa), immunoprecipitation, and immunofluorescence. Detection of the RALT band by immunoblotting is specifically inhibited by the RALT immunizing peptide.

RALT (receptor-associated late transducer) also known as gene 33 or Mig-6, belongs to a class of mammalian regulators of tyrosine kinase signaling, whose expression is transcriptionally controlled by receptor activation.[1, 2] RALT was isolated as a 459 amino acids protein interacting with the kinase domain of ErbB-2, a receptor tyrosine kinase (RTK) highly associated with development of breast and ovarian carcinomas.[2, 3] RALT was previously known as gene 33 from rat; its human counterpart is Mig-6.[4-6] A number of features reveals this protein as a candidate signal transducer: proline rich sequences, consensus sequences for phosphorylation by ERK1 and ERK2, a potential binding site for 14-3-3- proteins, and other potential sites for phosporylation by protein kinase C, A, and Casine kinase II.[2] Several indications show that RALT is a feedback inhibitor of the ErbB Receptor tyrosine kinase family: signaling by ErbB-2 induces expression of the RALT protein through activation of the Ras-Raf-ErK pathway; moreover, physiological levels of RALT suppress ErbB-2 mitogenic signals.[2, 4]

Transcriptional and translational control by proteosome-dependent degradation provide RALT with the ability to tune ErbB signals. Mig-6, the human homologue of RALT, was identifed as an interaction partner of EGF Receptor; similar to RALT, its transcription is induced upon EGF stimulation and suppresses transformation induced by EGF receptor overexpression, suggesting a role similar to RALT.[7] Other stimuli, such as osmotic stress and hypoxia, can also lead to induction of Gene 33/RALT expression.[5, 8]

Reagent

Anti-RALT/MIG-6 (PE-16) is supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: approx. 1.0 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 2-4 µg/ml is recommended using extracts of NIH-3T3 cells induced with 10% FCS (fetal calf serum).

By immunofluorescence, a working antibody concentration of 4-6 µg/ml is recommended using methanol-acetone fixed NIH-3T3 cells induced with 10% FCS (fetal calf serum)

By immunoprecipitation, 2.5-5.0 µg of the antibody will immunoprecipitates mouse RALT from extracts of NIH-3T3 cells induced with 10% FCS (fetal calf serum).

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

References

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