Human/Mouse/Rat Coactosin-like Protein 1/CotL1 Alexa Fluor® 750-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7865S
100 µg

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human Coactosin-like Protein 1/COTL1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Coactosin-like Protein 1/COTL1 Ala2-Glu142 Accession # Q14019
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

COTL1 (Coactosin-like Protein) is both a cytoplasmic and plasma-appearing 15-16 kDa member of the coactosin subfamily, ADF/Actin Depolymerizing Factor family of actin-binding proteins. It is widely expressed, and found in cell types such as neutrophils, and tissues such as placenta, lung and kidney. Functionally, COTL1 interacts noncovalently with both F-actin and 5-lipoxygenase/5LO. These interactions appear to be mutually exclusive. A COTL1:F-actin interaction leads to actin binding without actin polymerization, while a 5LO:COTL1 interaction has two potential outcomes; first, 5LO sequesters COTL1, leading to a failure of actin binding, and second, COTL1 can serve as a scaffold for 5LO activity, facilitating the production of either 5HPETE or LTA4. Human COTL1 is 142 amino acids (aa) in length. It is principally composed of one ADF-H domain (aa 2-130) that possesses a utilized phosphorylation site at Ser115, and two acetylation sites at Lys102 and Lys126. COTL1 may form noncovalent homodimers and oligomers, but not when complexed to F-actin. There is one potential isoform variant that shows a 106 aa substitution for aa 1-53. Full-length human and mouse COTL1 share 95% aa sequence identity.

PRODUCT SPECIFIC NOTICES

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