Human/Mouse/Rat Coactosin-like Protein 1/CotL1 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7865

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
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

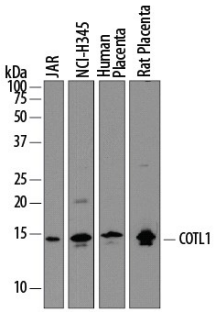
APPLICATIONS

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

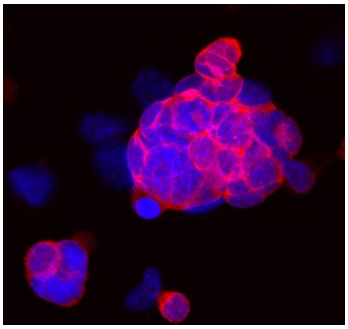
DATA

Western Blot



Detection of Human and Rat Coactosin-like Protein 1/COTL1 by Western Blot. Western blot shows lysates of JAR human choriocarcinoma cell line, NCI-H345 human small cell lung carcinoma cell line, human placenta tissue, and rat placenta tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human/Mouse/Rat Coactosin-like Protein 1/COTL1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7865) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Coactosin-like Protein 1/COTL1 at approximately 15 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



Coactosin-like Protein 1/COTL1 in NCI-H128 Human Cell Line. Coactosin-like Protein 1/COTL1 was detected in immersion fixed NCI-H128 human small cell lung carcinoma cell line using Sheep Anti-Human/Mouse/Rat Coactosin-like Protein 1/COTL1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7865) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956