

Golgin-97 (CDF4) Mouse mAb

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Applications: W, IF-IC	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 97	Source/Isotype: Mouse IgG1	UniProt ID: #Q92805	Entrez-Gene Id: 2800
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Product Usage Information**Application**

Western Blotting
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Golgin-97 (CDF4) Mouse mAb recognizes endogenous levels of total golgin-97 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant human Golgin-97 protein.

Background

The Golgi-associated protein golgin A1 (GOLGA1, golgin-97) was first isolated as a Golgi complex autoantigen associated with the autoimmune disorder Sjogren's syndrome (1). The golgin-97 protein contains a carboxy-terminal GRIP domain and is a commonly used trans-Golgi network (TGN) marker. All four known mammalian GRIP domain-containing proteins (golgin-97, golgin-245, GCC88, and GCC185) are found in the TGN, share extensive alpha-helical structure, and form homodimers (2). While all four golgin proteins localize to the TGN, they exhibit different membrane-binding abilities and are found in distinct TGN regions (3). Golgin-97 and golgin-245 are targeted to the TGN through an interaction between their GRIP domains and the Arl1 protein switch II region (4). Overexpression studies and siRNA assays with GRIP domain-containing proteins suggest that these proteins help to maintain TGN integrity and function by controlling localization of TGN resident proteins (5). By using a Shiga toxin B fragment (STxB)-based *in vitro* transport assay and an E-cadherin transport model system, golgin-97 and its effector Arl1-GTP were shown to play a role in trans-Golgi endosomal trafficking (6,7). Research studies also suggest that golgin-97 may play a role in poxvirus morphogenesis and maturation (8,9).

Background References

1. Griffith, K.J. et al. (1997) *Arthritis Rheum* 40, 1693-702.
2. Luke, M.R. et al. (2005) *Biochem J* 388, 835-41.
3. Derby, M.C. et al. (2004) *J Cell Sci* 117, 5865-74.
4. Lu, L. and Hong, W. (2003) *Mol Biol Cell* 14, 3767-81.
5. Yoshino, A. et al. (2003) *J Cell Sci* 116, 4441-54.
6. Lu, L. et al. (2004) *Mol Biol Cell* 15, 4426-43.
7. Lock, J.G. et al. (2005) *Traffic* 6, 1142-56.
8. Alzhanova, D. and Hruby, D.E. (2006) *J Virol* 80, 11520-7.
9. Alzhanova, D. and Hruby, D.E. (2007) *Virology* 362, 421-7.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

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