

#2296 Store at -20°C

GM130 Antibody

✓ 100 µl
(10 western blots)



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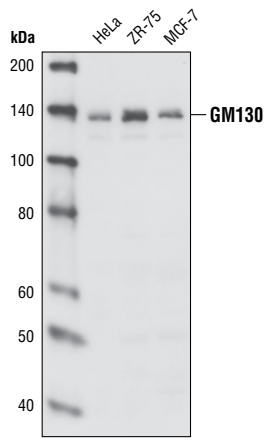
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications W, IP Endogenous	Species Cross-Reactivity* H, (Mk)	Molecular Wt. 130 kDa	Source Rabbit**
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Background: The Golgi apparatus functions in the modification, organization and transport of proteins and membranes targeted to other parts of the cell, such as the plasma membrane, lysosomes and endosomes. This regulated transport is important for appropriate protein localization, secretion and signal transduction. Members of the Golgin family of proteins, including GM130, Giantin, p115 and GRASP65, are defined by their presence in the Golgi matrix and by their long coiled coil domains. Golgin function, which is regulated in part by small GTPases of the Rab and Arl families, includes establishing and maintaining Golgi structure as well as transport (reviewed in 1). The Golgi cisternae are stacked and linked laterally to form a ribbon. GRASP65 and GM130 are required for membrane fusion events that mediate ribbon formation during Golgi assembly. These lateral fusion events allow for uniform distribution of Golgi enzymes (2). GM130 and Giantin interact with the transport factor p115 to facilitate endoplasmic reticulum (ER)-Golgi transport (3). GM130 is also involved in the transport of the Ether-a-go-go-Related (hERG) potassium ion channel, whose inappropriate localization may be an underlying cause in long Q-T syndrome, a hereditary and potentially fatal cardiac arrhythmia (4). Further, GM130 was implicated in signal transduction regulating invasion, migration and cell polarization via its interaction with and activation of serine/threonine kinases YSK1 and MST4 (5).

Specificity/Sensitivity: GM130 Antibody detects endogenous levels of total GM130 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide (KLH-coupled) corresponding to the amino-terminal sequence of human GM130.



Western blot analysis of extracts from HeLa, ZR-75 and MCF-7 cells using GM130 Antibody.

Background References:

- (1) Barr, F.A. and Short, B. (2003) *Curr. Opin. Cell Biol.* 15, 405-413.
- (2) Puthenveedu, M.A. et al. (2006) *Nat. Cell Biol.* 8, 238-248.
- (3) Alvarez, C. et al. (2001) *J. Biol. Chem.* 276, 2693-2700.
- (4) Roti, E.C. et al. (2002) *J. Biol. Chem.* 277, 47779-47785.
- (5) Preisinger, C. et al. (2004) *J. Cell Biol.* 164, 1009-1020.

Entrez-Gene ID #2801

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

*Species cross-reactivity is determined by Western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:
 Western blotting 1:1000
 Immunoprecipitation 1:25

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For Western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.