Revision 1

#9484 Store at -20C

Langerin Antibody

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	40-50	Rabbit	#Q9UJ71	50489

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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.

Specificity / Sensitivity

Langerin Antibody recognizes endogenous levels of total langerin protein.

Species predicted to react based on 100% sequence homology:

Mouse

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala81 of mouse langerin protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Langerin (CD207) is a C-type lectin receptor whose expression is restricted mainly to dendritic cells in the skin including Langerhans cells in the epidermis and langerin$^+$/CD103$^+$ dermal dendritic cells (1-4). Langerin is found on the cell surface and within rod-shaped organelles called Birbeck granules, and its expression is required for the formation of Birbeck granules (1,5). Langerin recognizes carbohydrate motifs on the surface of pathogens, resulting in endocytosis of the pathogen into Birbeck granules, degradation of the pathogen, and antigen presentation to T cells (6-8).

Background References

1. Valladeau, J. et al. (2000) *Immunity* 12, 71-81.
2. Poulin, L.F. et al. (2007) *J Exp Med* 204, 3119-31.
3. Ginhoux, F. et al. (2007) *J Exp Med* 204, 3133-46.
4. Bursch, L.S. et al. (2007) *J Exp Med* 204, 3147-56.
5. Kissenpfennig, A. et al. (2005) *Mol Cell Biol* 25, 88-99.
6. Stambach, N.S. and Taylor, M.E. (2003) *Glycobiology* 13, 401-10.
7. Idoyaga, J. et al. (2008) *J Immunol* 180, 3647-50.
8. Igyártó, B.Z. et al. (2011) *Immunity* 35, 260-72.

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

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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 **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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