Revision 1

Store at -20C

#86622

LRBA Antibody

Cell Signaling TECHNOLOGY®

Support: **877-678-TECH (8324)**

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	320	Rabbit	#P50851	987

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

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

LRBA Antibody recognizes endogenous levels of total LRBA protein. This antibody detects a 130 kDa band of unknown origin in some cell lines.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human LRBA protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

LRBA (lipopolysaccharide responsive beige-like anchor protein) is a 300 kDa intracellular protein that is a member of the PH-BEACH-WD40 protein family (1-3). Its BEACH domain contains an A-kinase anchoring protein (AKAP) motif, known to have an affinity for signaling enzymes (1,3). LRBA has been found to be overexpressed in several different cancers, such as renal, pancreas, colorectal, and lung (2). LRBA deficiency, caused by various mutations, can cause common variable immune deficiency (CVID) as well as other immune dysregulations (3,5). LRBA plays an immunoregulatory role to CTLA-4, protecting it from being degraded within lysosomes (4,6). In LRBA deficiency, CTLA-4 is synthesized normally, but is not delivered to Rab GTPase recycling compartments, instead resulting in enhanced lysosome degradation (4,6,7).

Background References

1. Wang, J.W. et al. (2001) *J Immunol* 166, 4586-95.
2. Wang, J.W. et al. (2004) *Oncogene* 23, 4089-97.
3. Lopez-Herrera, G. et al. (2012) *Am J Hum Genet* 90, 986-1001.
4. Lo, B. et al. (2015) *Science* 349, 436-40.
5. Gámez-Díaz, L. et al. (2016) *J Allergy Clin Immunol* 137, 223-230.
6. Hou, T.Z. et al. (2017) *Blood* 129, 1458-1468.
7. Janman, D. et al. (2021) *Immunology* 164, 106-119.

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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

Limited Uses

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