

Store at  
-20°C  
#58981

# Optineurin (D2L8S) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	75	Rabbit IgG	#Q96CV9	10133

## Product Usage Information

### Application

Western Blotting

### Dilution

1:1000

## 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

Optineurin (D2L8S) rabbit mAb recognizes endogenous levels of total optineurin protein.

## Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu410 of human optineurin protein.

## Background

Optineurin is a signaling protein involved in maintenance of the Golgi complex, membrane trafficking, NF-κB, and interferon signaling. Mutations in the gene encoding optineurin have been associated with human diseases including glaucoma, Paget disease of bone, and amyotrophic lateral sclerosis (ALS) (1-2). Optineurin is thought to contribute to these pathologies through regulation of inflammatory signaling, autophagy, and mitophagy (1, 3). The NF-κB-activating kinase/TANK-binding kinase 1 (NAK/TBK1) phosphorylates optineurin at serine 177, regulating optineurin's role in autophagy and mitophagy (4-6). The tumor suppressor HACE1 ubiquitylates optineurin, promoting the interaction of optineurin with the autophagy receptor p62/SQSTM1 (7).

## Background References

1. Ying, H. and Yue, B.Y. (2016) *Exp Eye Res* 144, 73-80.
2. Slowicka, K. et al. (2016) *Trends Immunol* 37, 621-33.
3. Markovinovic, A. et al. (2017) *Prog Neurobiol* 154, 1-20.
4. Moore, A.S. and Holzbaur, E.L. (2016) *Proc Natl Acad Sci U S A* 113, E3349-58.
5. Richter, B. et al. (2016) *Proc Natl Acad Sci U S A* 113, 4039-44.
6. Heo, J.M. et al. (2015) *Mol Cell* 60, 7-20.
7. Liu, Z. et al. (2014) *Cancer Cell* 26, 106-20.

## 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

## Cross-Reactivity Key

**H:** Human

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