

ZIP8/SLC39A8 (E3V8K) Rabbit mAb

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Applications: W, IP, IF-IC	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 65, 130	Source/Isotype: Rabbit IgG	UniProt ID: #Q9C0K1	Entrez-Gene Id: 64116
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:50
1:1600 - 1:3200

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

ZIP8/SLC39A8 (E3V8K) Rabbit mAb recognizes endogenous levels of total ZIP8/SLC39A8 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala265 of human ZIP8/SLC39A8 protein.

Background

Zinc transporter zinc-and iron-related protein 8 (ZIP8) is encoded by the *SLC39A8* gene and is a member of the solute carrier gene (SLC) superfamily (1). As a membrane protein, ZIP8 functions to transport manganese, cadmium, and zinc across the plasma membrane (2). Metal ions are essential elements that are required cofactors for proteins, including enzymes and transcription factors. Maintenance of proper metal ion homeostasis is required for normal mammalian tissue development and function. Mice lacking *SLC39A8* reveal a critical role of ZIP8 in organogenesis in multiple tissues, including the brain and kidney, during development (3,4). Mutations in *SLC39A8* are linked to autosomal-recessive forms of intellectual disability, suggesting that altered ZIP8-dependent metal ion regulation may contribute to human neuronal developmental diseases (5).

Background References

1. He, L. et al. (2009) *Hum Genomics* 3, 195-206.
2. He, L. et al. (2006) *Mol Pharmacol* 70, 171-80.
3. Avila, D.S. et al. (2013) *Met Ions Life Sci* 13, 199-227.
4. Gálvez-Peralta, M. et al. (2012) *PLoS One* 7, e36055.
5. Boycott, K.M. et al. (2015) *Am J Hum Genet* 97, 886-93.

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 **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

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