Revision 5

Store at -20C

#42299

NaPi2b/SLC34A2 (D6W2G) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IHC-Bond, IHC-P, IF-IC	H	Endogenous	73, 90-130	Rabbit IgG	#O95436	10568

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50
IHC Leica Bond	1:200 - 1:800
Immunohistochemistry (Paraffin)	1:200
Immunofluorescence (Immunocytochemistry)	1:400

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.

For a carrier free (BSA and azide free) version of this product see product #31490.

Specificity/Sensitivity

NaPi2b/SLC34A2 (D6W2G) Rabbit mAbrecognizes endogenous levels of total NaPi2b/SLC34A2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human NaPi2b/SLC34A2 protein.

Background

The sodium-dependent phosphate transport protein 2B (NaPi-2b, SLC34A2) is a sodium dependent inorganic phosphate (Pi) transporter that regulates phosphate homeostasis in various organs, including the small intestine, lung, liver, and testis (1). In the small intestine, NaPi-2b localizes to the intestinal brush border membrane to mediate Pi reabsorption (2). In the lung, NaPi-2b is expressed in the apical membrane of type II alveolar cells and is involved in the synthesis of surfactant (3). Mutations in the corresponding *SLC34A2* gene causes pulmonary alveolar microlithiasis, a rare autosomal recessive disorder characterized by the deposition of calcium phosphate microliths throughout the lungs (4). Research studies show aberrant expression of NaPi-2b in various type of cancer, including ovarian, breast, and lung cancer (5). Chromosomal rearrangements involving *SLC34A2-ROS1* are seen in gastric carcinoma and non-small cell lung cancer and result in the formation of a SLC34A2-ROS1 chimeric protein that retains a constitutive kinase activity (6,7).

Background References

1. Xu, H. et al. (1999) *Genomics* 62, 281-4.
2. Hilfiker, H. et al. (1998) *Proc Natl Acad Sci U S A* 95, 14564-9.
3. Traebert, M. et al. (1999) *Am J Physiol* 277, L868-73.
4. Yin, X. et al. (2013) *Respir Med* 107, 217-22.
5. Kiyamova, R. et al. (2011) *Exp Oncol* 33, 157-61.
6. Davies, K.D. et al. (2012) *Clin Cancer Res* 18, 4570-9.
7. Lee, J. et al. (2013) *Cancer* 119, 1627-35.

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 **IHC-Bond:** IHC Leica Bond **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

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