Revision 7

Store at -20C

#12851

β2-microglobulin (D8P1H) Rabbit mAb

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

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, W-S, IHC-P, IF-IC, FC-FP	H Mk	Endogenous	12	Rabbit IgG	#P61769	567

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Simple Western™	1:10 - 1:50
Immunohistochemistry (Paraffin)	1:6000
Immunofluorescence (Immunocytochemistry)	1:100
Flow Cytometry (Fixed/Permeabilized)	1:100

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 #47847.

Specificity/Sensitivity

β2-microglobulin (D8P1H) Rabbit mAb recognizes endogenous levels of total β2-microglobulin protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val57 of human β2-microglobulin protein.

Background

β2-microglobulin (B2M) is a principal component of the Major Histocompatibility Complex (MHC) class I molecule, a ternary membrane protein complex that displays fragments derived from proteolyzed cytosolic proteins on the surface of cells for recognition by the surveillance immune system (1,2). As an integral component of the MHC class I complex, β2-microglobulin plays a critically important role in immune system function (3). It has important relevance to cancer biology research; for example, research studies have shown that nearly one-third of diffuse large B cell lymphomas contain mutations that inactivate β*2-microglobulin* gene function, thereby allowing tumor cells to escape immune detection (4). In addition, β2-microglobulin has been identified as an amyloid preprotein with collagen-binding affinity (5); its accumulation in osteoarthritic lesions of long-term dialysis patients is reportedly a contributing factor to the condition known as amyloid osteoarthropathy (6).

Background References

1. Krangel, M.S. et al. (1979) *Cell* 18, 979-91.
2. Collins, E.J. et al. (1995) *Proc Natl Acad Sci USA* 92, 1218-21.
3. Marx, J.I. (1974) *Science* 185, 428-9.
4. Challa-Malladi, M. et al. (2011) *Cancer Cell* 20, 728-40.
5. Gorevic, P.D. et al. (1985) *J Clin Invest* 76, 2425-9.
6. Ohashi, K. (2001) *Pathol Int* 51, 1-10.

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 **W-S:** Simple Western™ **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human **Mk:** Monkey

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