

#14730 Store at 4°C

β 2-microglobulin (D8P1H) Rabbit mAb (PE Conjugate)

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Entrez-Gene ID #567
UniProt ID #P61769

New 03/15

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications
F
Endogenous

Species Cross-Reactivity*
H, Mk

Isotype
Rabbit IgG

Description: This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated β 2-microglobulin (D8P1H) Rabbit mAb #12851.

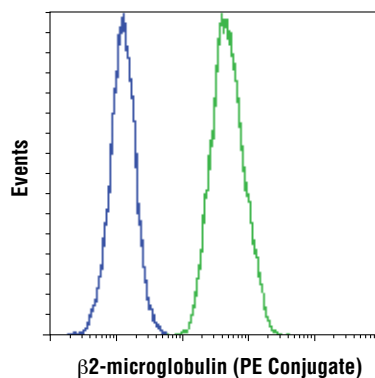
Background: β 2-microglobulin (B2M) is a principal component of the Major Histocompatibility Complex (MHC) class I molecule, a ternary membrane protein complex that displays fragments derived from proteolyzed cytosolic proteins on the surface of cells for recognition by the surveillance immune system (1,2). As an integral component of the MHC class I complex, β 2-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, β 2-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).

Specificity/Sensitivity: β 2-microglobulin (D8P1H) Rabbit mAb recognizes endogenous levels of total β 2-microglobulin protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp79 of human β 2-microglobulin protein.

Background References:

- (1) Krangel, M.S. et al. (1979) *Cell* 18, 979-91.
- (2) Collins, E.J. et al. (1995) *Proc Natl Acad Sci U S A* 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.



Flow cytometric analysis of DLD-1 cells (blue) and HeLa cells (green) using β 2-microglobulin (D8P1H) Rabbit mAb (PE Conjugate).

Storage: Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibodies. Protect from light. Do not freeze.

*Species cross-reactivity is determined by western blot using the unconjugated antibody.

Recommended Antibody Dilutions:

Flow Cytometry 1:50

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected *Species enclosed in parentheses are predicted to react based on 100% homology.