β2-microglobulin (D8P1H) Rabbit mAb

**Applications**
- Western, IHC-P, IF-IC, F, Endogenous

**Species Cross-Reactivity**
- H, Mk

**Molecular Wt.**
- 12 kDa

**Isotype**
- Rabbit IgG

**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 surveill- lance 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 β2-microglobulin due to genomic deletions at the β2-microglobulin locus.

**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.

**Recommended Antibody Dilutions:**
- Western blotting: 1:1000
- Immunohistochemistry (Paraffin): 1:6000
- Unmasking buffer: Citrate Antibody diluent: SignalStain® Antibody Diluent #6112
- Detection reagent: SignalStain® Boost (HRP, Rabbit) #8114
- Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.
- Immunofluorescence (IF-IC): 1:100
- IF Protocol: Methanol Permeabilization required
- Flow Cytometry: 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.

**Species cross-reactivity is determined by western blot.**

**Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Complementary Products:**
- Flow Cytometry
- ELISA-Peptide
- Immunoprecipitation
- Western Blotting
- Immunohistochemistry
- Enzyme-Linked Immunosorbent Assay
- Chromatin Immunoprecipitation
- Immunofluorescence

**Background References:**

**Confocal immunofluorescent analysis of PANC-1 (positive, left) and DLD-1 (negative, right) cells, using β2-microglobulin (D8P1H) Rabbit mAb (green). Blue pseudocolor= DRAQ5® (fluorescent DNA dye).**

**Western blot analysis of extracts from various cell lines using β2-microglobulin (D8P1H) Rabbit mAb (upper) and β-Actin (D3A6) Rabbit mAb #8457 (lower). DLD-1 and Daudi cell lines are negative for β2-microglobulin due to genomic deletions at the β2-microglobulin locus.**

**IMPORTANT:** For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

**For product specific protocols please see the web page for this product at www.cellsignal.com.**

Please visit www.cellsignal.com for a complete listing of recommended complementary products.
β2-microglobulin

Flow cytometric analysis of DLD-1 cells (blue) and HeLa cells (green) using β2-microglobulin (D8P1H) Rabbit mAb. Anti-rabbit IgG (H+L), F(ab')2 Fragment (Alexa Fluor® 647 Conjugate) #4414 was used as a secondary antibody.

Immunohistochemical analysis of paraffin-embedded colon carcinoma using β2-microglobulin (D8P1H) Rabbit mAb in the presence of control peptide (left) or antigen-specific peptide (right).

Immunohistochemical analysis of paraffin-embedded human skin using β2-microglobulin (D8P1H) Rabbit mAb.

Immunohistochemical analysis of paraffin-embedded HeLa (left) and DLD-1 (right) cell pellets using β2-microglobulin (D8P1H) Rabbit mAb.