Revision 1

Store at -20C

#65367

Mesothelin (D4X7M) Rabbit mAb

Cell Signaling TECHNOLOGY®

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

Support: 877-678-TECH (8324)

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, IP	H	Endogenous	46-48, 70	Rabbit IgG	#Q13421	10232

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

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

Mesothelin (D4X7M) Rabbit mAb recognizes endogenous levels of total mesothelin protein. The antibody recognizes both uncleaved (full-length) and cleaved forms of mesothelin, but does not detect the cleaved fragment corresponding to megakaryocyte-potentiating factor (MPF).

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly557 of human mesothelin protein.

Background

The *MSLN* gene encodes a 69 kDa precursor protein that is proteolytically cleaved to yield megakaryocyte potentiating factor (MPF) and a GPI-anchored membrane protein termed mesothelin (1). Expression of (cleaved) mesothelin is largely confined to mesothelial cells of normal pleura, pericardium, and peritoneum, but has been reported to be overexpressed in some cancers, including mesothelioma, and some pancreatic and ovarian adenocarcinomas (1,2). Although suggested to be involved in cell adhesion, the physiological functions of mesothelin have not been determined. It is known, however, that mesothelin can be shed from the cell surface following cleavage by TNF-α converting enzyme. Research studies show that serum levels of mesothelin are markedly increased in patients with mesothelioma and ovarian cancer (1), suggesting that serum mesothelin levels may have utility as a cancer biomarker (1-3).

Background References

1. Pastan, I. and Hassan, R. (2014) *Cancer Res* 74, 2907-12.
2. Villena-Vargas, J. and Adusumilli, P.S. (2012) *Ann Cardiothorac Surg* 1, 466-71.
3. Hassan, R. et al. (2004) *Clin Cancer Res* 10, 3937-42.

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 **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

Trademarks and Patents

Limited Uses

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