

**MUC4  $\beta$  (D4W9X) XP<sup>®</sup> Rabbit mAb**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-P	H	Endogenous	100-170	Rabbit IgG	#Q99102	4585

**Product Usage Information****Application**

Western Blotting  
Immunohistochemistry (Paraffin)

**Dilution**

1:1000  
1:250 - 1:1000

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at  $-20^{\circ}\text{C}$ . *Do not aliquot the antibody.*

**Specificity/Sensitivity**

MUC4  $\beta$  (D4W9X) XP<sup>®</sup> Rabbit mAb recognizes endogenous levels of total MUC4 protein ( $\beta$  subunit).

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the amino terminus of human MUC4 protein ( $\beta$  subunit).

**Background**

MUC4 is a membrane-bound mucin family member (1,2). It is a heterodimer of extracellular  $\alpha$  subunits associated with a trans-membrane  $\beta$  subunit. There are 3 epidermal growth factor (EGF)-like domains in the extracellular region of the  $\beta$  subunit. These EGF-like domains can directly interact with ErbB2 to activate the downstream signaling pathways. MUC4 is expressed in the epithelial tissues of lung and gastrointestinal organs during development as well as in adult stage. It exerts a protective effect to these tissues against potential damage (3). Overexpression of MUC4 has been found in multiple types of cancers to promote cancer growth, survival, and metastasis (4-6). MUC4 has been proposed as a promising prognostic marker for cancer evaluation.

**Background References**

1. Kasprzak, A. and Adamek, A. (2019) *Int J Mol Sci* 20, pii: E1288. doi: 10.3390/ijms20061288.
2. Hanson, R.L. and Hollingsworth, M.A. (2016) *Biomolecules* 6, pii: E34. doi: 10.3390/biom6030034.
3. Chaturvedi, P. et al. (2008) *FASEB J* 22, 966-81.
4. Gautam, S.K. et al. (2017) *Expert Opin Ther Targets* 21, 657-69.
5. Bafna, S. et al. (2010) *Oncogene* 29, 2893-904.
6. Xia, P. et al. (2017) *Oncotarget* 8, 14147-57.

**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  $4^{\circ}\text{C}$  with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

**Cross-Reactivity Key**

**H:** Human

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