

HOXB13 (D7N8O) Rabbit mAb

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| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---------------|-------------|--------------|-----------|-----------------|-------------|-----------------|
| W, IP, IHC-P | H Mk | Endogenous | 30 | Rabbit IgG | #Q92826 | 10481 |

Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:50
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 #85470.

Specificity/Sensitivity

HOXB13 (D7N8O) Rabbit mAb recognizes endogenous levels of total HOXB13 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly11 of human HOXB13 protein.

Background

HOXB13 is a member of the HOXB cluster which, along with the HOXA, HOXC, and HOXD clusters, governs embryonic patterning along the cranio-caudal axis (1,2). HOXB13 plays a key role in the development of the ventral prostate, where it is expressed highly from the embryonic stage through adulthood (3,4). Research studies have shown that both overexpression and RNA interference can inhibit the growth of prostate cancer cells. HOXB13 can function as a tumor suppressor by negatively regulating growth through repression of TCF4 and androgen receptor (AR) signaling (4,5). However, HOXB13 has also been shown to be overexpressed in more invasive prostate cancers, breast and ovarian cancers, and hepatocellular carcinomas (6-9). A common germline mutation G84E in the HOXB13 protein has recently been found to be associated with significant increased risk of prostate cancer (10). Currently, HOXB13 is being evaluated as a marker for metastatic lesions of prostate origin (11,12).

Background References

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3. Economides, K.D. and Capecchi, M.R. (2003) *Development* 130, 2061-9.
4. Jung, C. et al. (2004) *Cancer Res* 64, 3046-51.
5. Jung, C. et al. (2004) *Cancer Res* 64, 9185-92.
6. Jeong, T.O. et al. (2012) *Mol Med Rep* 5, 901-4.
7. Shah, N. et al. (2013) *Cancer Res* 73, 5449-58.
8. Miao, J. et al. (2007) *Proc Natl Acad Sci U S A* 104, 17093-8.
9. Zhu, J.Y. et al. (2014) *Int J Clin Exp Pathol* 7, 2925-33.
10. Ewing, C.M. et al. (2012) *N Engl J Med* 366, 141-9.
11. Barresi, V. et al. (2016) *APMIS* 124, 188-93.
12. Varinot, J. et al. (2016) *Virchows Arch* 468, 619-22.

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°C with gentle shaking, overnight.

Applications Key

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

Cross-Reactivity Key

H: Human **Mk:** Monkey

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