

**HOXD9 Antibody**

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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, IP	H Mk	Endogenous	42	Rabbit	#P28356	3235

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

Western Blotting  
Immunoprecipitation

**Dilution**

1:1000  
1:100

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

HOXD9 Antibody recognizes endogenous levels of total HOXD9 protein.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human HOXD9 protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

Homeobox protein Hox-D9 (HOXD9) is a sequence-specific transcription factor that is part of a developmental regulatory program that provides cells with specific positional identities on the anterior-posterior axis. HOXD9 is developmentally expressed in structures of either mesodermal or neuroectodermal origin, such as developing limbs, gonads, and the central nervous system (1-6). HOXD9 plays a critical role in regulation of limb development, neuronal development, and development of mammary glands and gonads in many organisms (1-6). The HOXD9 gene promoter is found to be hypermethylated and silenced in multiple types of cancer, including breast cancer, melanoma brain metastases, and cholangiocarcinomas (7-9). In addition, HOXD9 expression is increased in other types of cancer, including human glioblastomas and astrocytomas, where expression appears to drive growth of the tumors (10).

**Background References**

1. Raines, A.M. et al. (2013) *Development* 140, 2942-52.
2. Wang, Z. et al. (2010) *BMC Genomics* 11, 619.
3. Freitas, R. et al. (2007) *PLoS One* 2, e754.
4. Tanaka, M. et al. (2005) *Dev Biol* 281, 227-39.
5. de la Cruz, C.C. et al. (1999) *Dev Biol* 216, 595-610.
6. Chen, F. and Capecchi, M.R. (1999) *Proc Natl Acad Sci U S A* 96, 541-6.
7. Makiyama, K. et al. (2005) *Oncol Rep* 13, 673-9.
8. Marzese, D.M. et al. (2014) *Hum Mol Genet* 23, 226-38.
9. Sriraksa, R. et al. (2013) *Cancer Prev Res (Phila)* 6, 1348-55.
10. Tabuse, M. et al. (2011) *Mol Cancer* 10, 60.

**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

**Cross-Reactivity Key**

**H:** Human **Mk:** Monkey

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