Product Datasheet

HOXB2 Antibody (orb2635058)

Description	Hox genes play a fundamental role in the development of the vertebrate central nervous system, heart, axial skeleton, limbs, gut, urogenital tract and external genitalia. The homeobox gene HoxB1 is critical to hindbrain development and has phenotypic features frequently observed in autism. Analysis of expression and targeted disruption of HoxB1 demonstrates that it is also essential for patterning progenitor cells along the entire DV axis of rhombomere 4 (r4). HoxB1 maintains this function by acting very early during hindbrain neurogenesis to specify effectors of the Sonic hedgehog and Mash1 signaling pathways. HoxB2 is a homeodomain protein important in neural development that is also expressed during erythropoiesis, hindbrain development and normal human adult lung development. HoxB2 may modulate the amount of gamma-globin mRNA expressed during development and differentiation. In addition, HoxB2 plays an important role in the patterning of hindbrain and pharyngeal arches in the zebrafish.
Species/Host	Mouse
Reactivity	Human
Conjugation	Unconjugated
Tested Applications	ELISA, FACS, IF, IHC-P, WB
Immunogen	A portion of amino acids 114-220 was used as the immunogen for the HOXB2 antibody.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Note	For research use only
Application notes	Optimal dilution of the HOXB2 antibody should be determined by the researcher.
Formula	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide
Isotype	Mouse IgG2b

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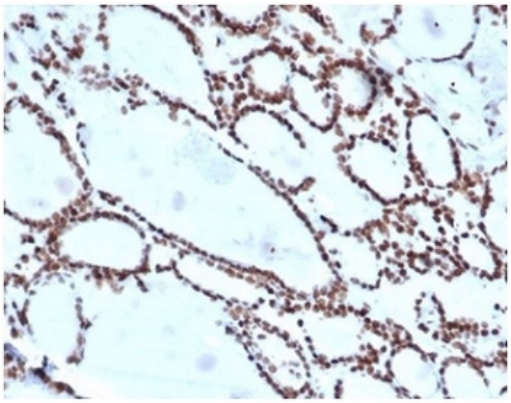
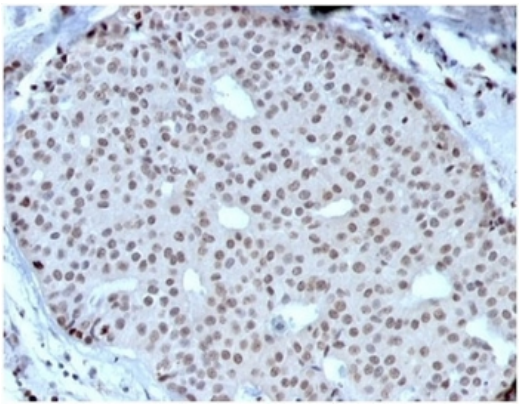
Clonality	Monoclonal
Clone Number	PCRP-HOXB2-1F2
Antibody Type	Primary Antibody
Uniprot ID	**P14652**
Hazard Information	This HOXB2 antibody is available for research use only.
Dilution Range	ELISA (order BSA-free format for coating),Flow cytometry: 1-2ug/million cells,Immunofluorescence: 1-2ug/ml,Western blot: 1-2ug/ml,Immunohistochemistry (FFPE): 1-2ug/ml
Expiration Date	12 months from date of receipt.



IHC staining of FFPE human thyroid tissue with HOXB2 antibody (clone PCRP-HOXB2-1F2) at 2 ug/ml in PBS for 30 min RT. HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human breast carcinoma tissue with HOXB2 antibody (clone PCRP-HOXB2-1F2) at 2 ug/ml in PBS for 30 min RT. HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

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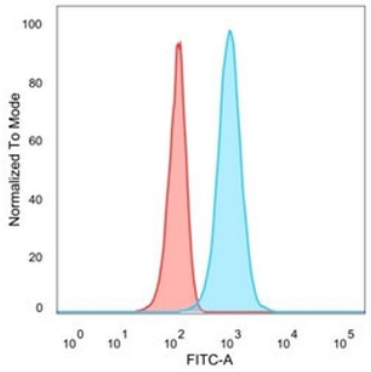
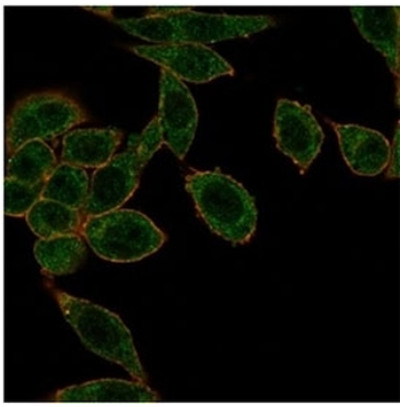
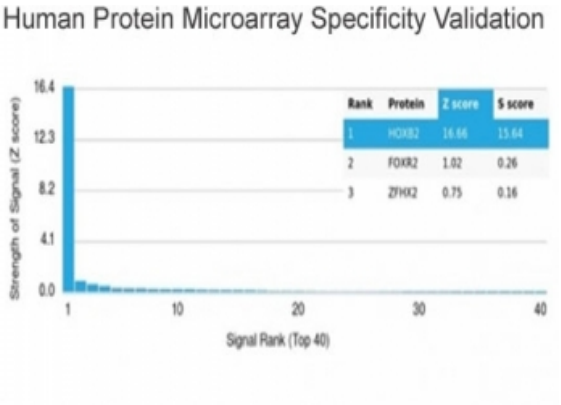


FACS staining of PFA-fixed human HeLa cells with HOXB2 antibody (blue, clone PCRP-HOXB2-1F2) and isotype control (red).



Immunofluorescent staining of PFA-fixed human HeLa cells using HOXB2 antibody (green, clone PCRP-HOXB2-1F2) and phalloidin (red).



Analysis of HuProt (TM) microarray containing more than 19000 full-length human proteins using HOXB2 antibody (clone PCRP-HOXB2-1F2). These results demonstrate the foremost specificity of the PCRP-HOXB2-1F2 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt (TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt (TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

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