

For Research Use Only

# GBX2 Monoclonal antibody

Catalog Number: 61029-1-Ig



## Basic Information

<b>Catalog Number:</b> 61029-1-Ig	<b>GenBank Accession Number:</b> BC137448	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 150ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 2637	<b>CloneNo.:</b> 4F3E4
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P52951	<b>Recommended Dilutions:</b> WB: 1:5000-1:50000 IHC: 1:500-1:2000 IF/ICC: 1:400-1:1600
<b>Isotype:</b> IgG1	<b>Full Name:</b> gastrulation brain homeobox 2	
<b>Immunogen Catalog Number:</b> AG17109	<b>Calculated MW:</b> 348 aa, 37 kDa	
	<b>Observed MW:</b> 37 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, ELISA

**Species Specificity:**  
human, mouse

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

**WB :** NCI-H1299 cells, C2C12 cells, PC-3 cells, HCT 116 cells, A172 cells

**IHC :** mouse brain tissue,

**IF/ICC :** HeLa cells,

## Background Information

Gastrulation Brain Homeobox 2 (GBX2) is a transcription factor belonging to the homeobox gene family, which plays a critical role in embryonic development, particularly in brain patterning and neural differentiation. It is highly conserved across vertebrates and is essential for the proper formation of the midbrain-hindbrain boundary and the development of the cerebellum. GBX2 is expressed in specific regions of the developing central nervous system and regulates downstream target genes involved in cell fate determination and tissue morphogenesis. Dysregulation or mutations in GBX2 have been associated with developmental disorders and may contribute to tumorigenesis in certain cancers. (PMID: 11063941; PMID: 31758726)

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

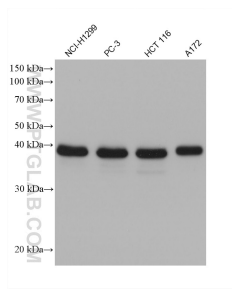
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

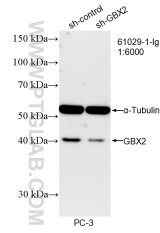
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

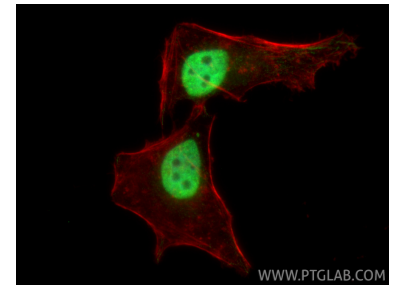
## Selected Validation Data



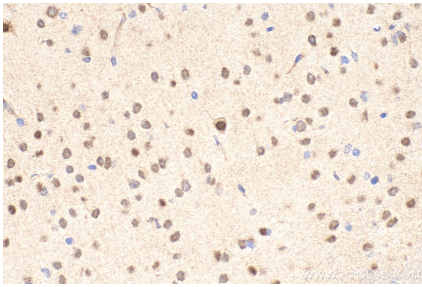
Various lysates were subjected to SDS PAGE followed by western blot with 61029-1-Ig (GBX2 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



WB result of GBX2 antibody (61029-1-Ig; 1:6000; incubated at room temperature for 1.5 hours) with sh-Control and sh-GBX2 transfected PC-3 cells.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using GBX2 antibody (61029-1-Ig, Clone: 4F3E4) at dilution of 1:800 and CoraLite@488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1), CL594-phalloidin (red).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 61029-1-Ig (GBX2 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).