abcam

ab140661

Anti-Brachyury / Bry antibody [1H9A2]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	1H9A2
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/200 - 1/400
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Species	Recombinant fragment
Dilution info	1/200 - 1/400
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

ELISA

Tested

Species	Human, Recombinant fragment
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/500 - 1/2000
Notes	-

Species	Recombinant fragment
Dilution info	1/500 - 1/2000
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/200 - 1/1000
Notes	-

Species	Recombinant fragment
Dilution info	1/200 - 1/1000
Notes	-

Target data

See full target information TBXT

Function	Involved in the transcriptional regulation of genes required for mesoderm formation and differentiation. Binds to a palindromic T site 5'-TTCACACCTAGGTGTGAA-3' DNA sequence and activates gene transcription when bound to such a site.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Notes

This product was changed from ascites to supernatant. Lot no's high than GR136145-8 are from Tissue Culture Supernatant

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The Brachyury protein also known as Bry or T acts as a transcription factor and belongs to the T-box family of genes. It consists of about 435 amino acids giving it an estimated mass of around 47 kDa. Brachyury plays a critical role in the development of the posterior mesoderm and nucleus pulposus during embryogenesis. It is strongly expressed in the notochord mesoderm and some tumor tissues. The protein's presence can be detected using specific assays such as Brachyury IHC (immunohistochemistry) and Brachyury stain which help identify Brachyury marker expression in both normal and pathological states.
Biological function summary	The Brachyury protein influences the morphogenetic movement in mesoderm development. It directly interacts with specific DNA sequences to regulate the transcription of target genes. Brachyury often operates as part of a larger transcriptional complex that manages the differentiation and migration of cells during embryogenesis. The gene's expression indicates mesodermal differentiation and is important for cell fate decisions within developing embryos.

Pathways	Brachyury plays a significant role in the Wnt signaling and the TGF-beta pathways. These pathways are essential in controlling cell proliferation and differentiation. Brachyury directly impacts the regulation of these pathways influencing other proteins like beta-catenin in Wnt signaling. This interconnectedness suggests its broader role in cellular communication and development processes potentially affecting gene expression across these pathways.
Associated diseases and disorders	Brachyury has been associated with various cancers such as chordoma and other related tumors. Chordoma specifically involves the notochord where Brachyury marks the disease's presence. Other proteins like E-cadherin interact with Brachyury in tumor progression and metastasis. Understanding Brachyury's function helps in diagnosing and potentially targeting treatment options for these ailments.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

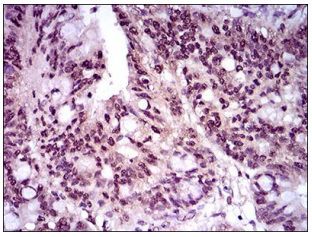
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

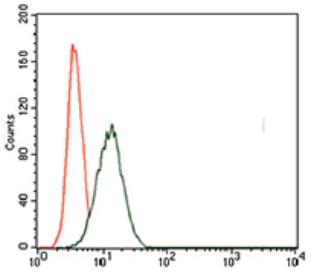
6 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Brachyury / Bry antibody [1H9A2] (ab140661)

Brachyury / Bry Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Brachyury / Bry antibody

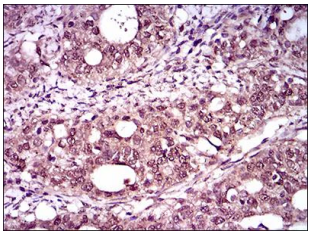
Immunohistochemical analysis of paraffin-embedded Human rectum cancer tissue labeling Brachyury / Bry with ab140661 at 1/200 dilution followed by DAB staining.



Flow Cytometry - Anti-Brachyury / Bry antibody [1H9A2] (ab140661)

Brachyury / Bry Flow Cytometry staining using mouse Anti-Brachyury / Bry antibody

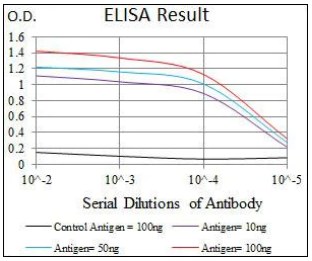
Flow cytometric analysis of HeLa cells labeling Brachyury / Bry with ab140661 at 1/200 dilution (green); negative control (red).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Brachyury / Bry antibody [1H9A2] (ab140661)

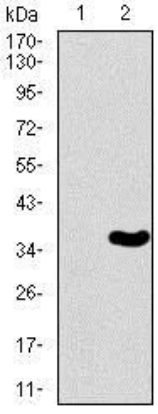
Brachyury / Bry Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Brachyury / Bry antibody

Immunohistochemical analysis of paraffin-embedded Human cervical cancer tissue labeling Brachyury / Bry with ab140661 at 1/200 dilution followed by DAB staining.



ELISA - Anti-Brachyury / Bry antibody [1H9A2] (ab140661)

ELISA analysis using ab140661. Antigen = Purified recombinant fragment, corresponding to amino acids 257-309 of Human Brachyury / Bry, expressed in E. Coli.



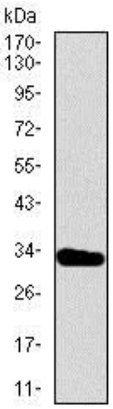
Western blot - Anti-Brachyury / Bry antibody [1H9A2] (ab140661)

All lanes:
Western blot - Anti-Brachyury / Bry antibody [1H9A2] (ab140661) at 1/500 dilution

Lane 1:
HEK293 cell lysate

Lane 2:
HEK293 cell lysate, transfected with recombinant Human Brachyury / Bry fragment (aa 257-309)

Predicted band size: 47 kDa



Western blot - Anti-Brachyury / Bry antibody [1H9A2] (ab140661)

Expected MW is 31.2 kDa.
All lanes:
Western blot - Anti-Brachyury / Bry antibody [1H9A2] (ab140661) at 1/500 dilution

All lanes:
Recombinant Human Brachyury / Bry protein

Predicted band size: 47 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.