


Anti-Brachyury / Bry antibody ab20680

 5 Abreviews |  13 References |  4 Images

Overview

Product name	Anti-Brachyury / Bry antibody
Description	Rabbit polyclonal to Brachyury / Bry
Tested applications	ICC/IF, ICC, IHC-Fr, Flow Cyt, IHC-P, WB
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Dog  Does not react with Zebrafish
Immunogen	Synthetic peptide conjugated to KLH derived from within residues 250 - 350 of Human Brachyury. Read Abcam's proprietary immunogen policy (Peptide available as ab21992 .)
Positive control	ab20680 gives a positive signal in Murine Embryonic Stem Cells differentiated to express mesoderm markers in WB and Human brain tissue sections by Immunohistochemistry .




Properties

Form	Liquid
Storage instructions	Store at +4°C short term (1-2 weeks). Aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab20680** in the following tested applications.

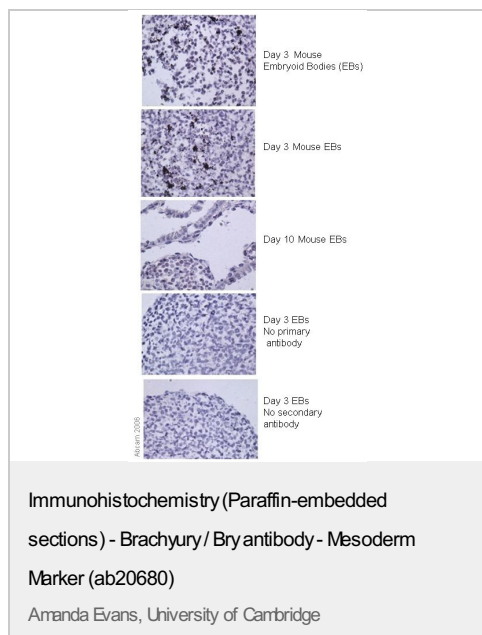
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use at an assay dependent dilution.
ICC		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent dilution.
Flow Cyt		Use at an assay dependent concentration. PubMed: 21083428
IHC-P		Use at an assay dependent concentration.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 47 kDa (predicted molecular weight: 47 kDa). Can be blocked with Human Brachyury / Bry peptide (ab21992) .

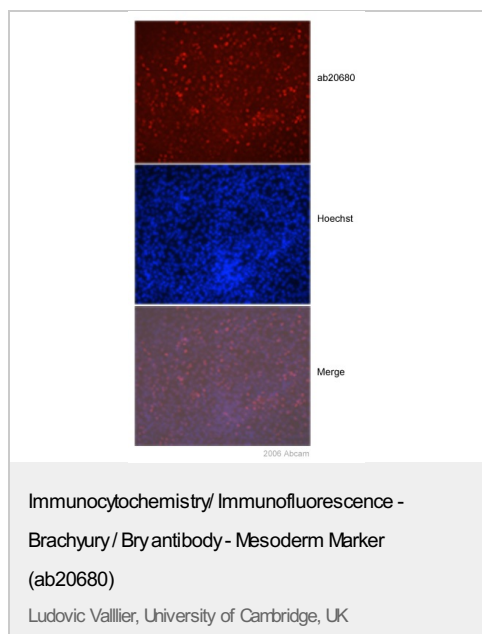
Target

Function	Involved in the transcriptional regulation of genes required for mesoderm formation and differentiation. Binds to a palindromic site (called T site) and activates gene transcription when bound to such a site.
Involvement in disease	Genetic variations in T are associated with susceptibility to neural tube defects (NTD) [MIM:182940]. NTD are common congenital malformations. Spina bifida, which results from malformations in the caudal region of the neural tube, is compatible with life but associated with significant morbidity, including lower limb paralysis. T is involved in susceptibility to the development of chordoma (CHDM) [MIM:215400]. Chordomas are rare, clinically malignant tumors derived from notochordal remnants. They occur along the length of the spinal axis, predominantly in the sphenoccipital, vertebral and sacrococcygeal regions. They are characterized by slow growth, local destruction of bone, extension into adjacent soft tissues and rarely, distant metastatic spread. Note=Susceptibility to development of chordomas is due to a T gene duplication.
Sequence similarities	Contains 1 T-box DNA-binding domain.

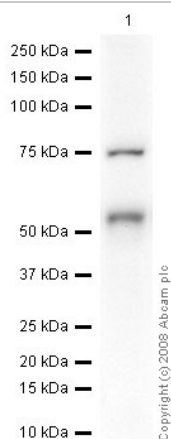
Anti-Brachyury / Bry antibody images



A proportion of nuclei from Day 3 Mouse EBs (derived from R1 cells) stained positive for Brachyury using ab20680. In Day 8 EBs a vastly reduced proportion of nuclei stained positive (not shown). In day 10 EBs no nuclei stained Brachyury-positive. The IHC-P data for Brachyury in EBs corresponded with qRT-PCR expression data (not shown). Controls on Day 3 EBs in which primary or secondary antibody were omitted, undifferentiated ES cells and feeder cells (MEFs) all exhibited very little background staining. Zinc was used for tissue fixation. Zinc was used for tissue fixation.



Anti-Brachyury antibody, ab20680, stained nuclei of human embryonic stem cells differentiated into mesoderm. As would be expected, mesoderm cells express Brachyury whereas endoderm cells are negative.



Western blot - Anti-Brachyury / Bry antibody - Mesoderm Marker (ab20680)

Anti-Brachyury / Bry antibody (ab20680) at 1 µg/ml +
Whole Cell Lysate from Murine ES Cells Differentiated to
Express Mesoderm Markers at 15 µg

Secondary

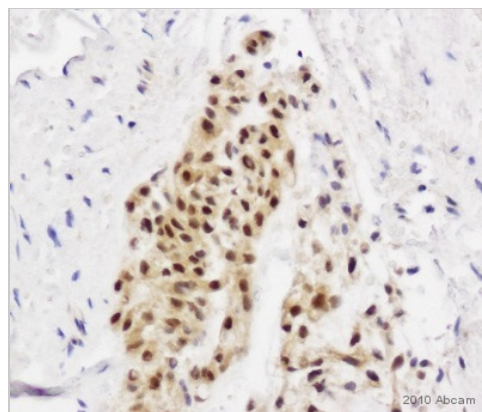
Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP)
at 1/3000 dilution

Performed under reducing conditions.

Predicted band size : 47 kDa

Observed band size : 53 kDa

Additional bands at : 75 kDa. We are unsure as to the identity of these extra bands. ab20680 recognizes a band of 53 kDa in Murine Embryonic Stem Cells differentiated to express mesoderm markers. This corresponds in size to the Brachyury protein which has a predicted molecular weight of 47 kDa. A band of 75 kDa has also been observed, although we are unsure as to the identity of this band.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Brachyury / Bry antibody - Mesoderm Marker (ab20680)

This image is courtesy of an Abreview submitted by Jim Manavis

ab20680 staining Brachyury in Human brain tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% serum for 30 minutes at room temperature; antigen retrieval was by heat mediation with a citrate buffer. Samples were incubated with primary antibody (1/2000 in horse serum) for 12 hours. A Streptavidin-conjugated Horse anti-rabbit monoclonal (1/250) was used as the secondary antibody.

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery**
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <http://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

Product Datasheet

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors
- **Regional variations to our Abpromise may apply to the following countries: China, Korea, Singapore, Malaysia, Taiwan and Thailand, which operate a 120 day guarantee. Please contact your regional office for further details

Visit us at: www.abcam.com