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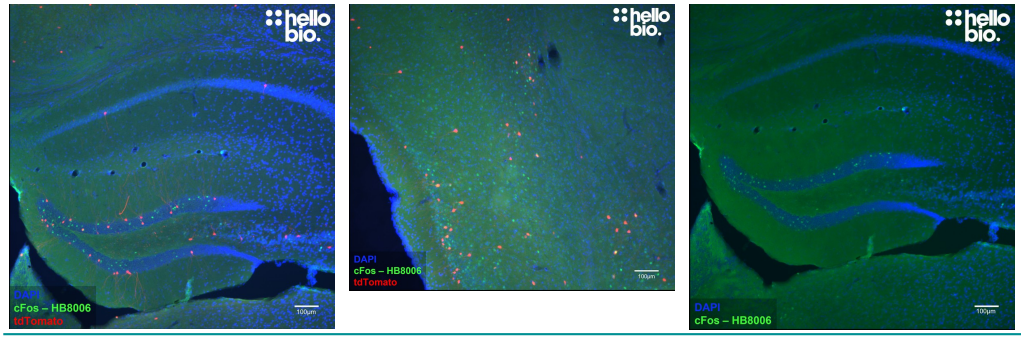
DATASHEET

Anti-c-Fos antibody ValidAb™

Product overview

Name	Anti-c-Fos antibody ValidAb™
Cat No	HB8006
Host	Mouse
Clonality	Monoclonal
Target	c-Fos
Description	Antibody to c-Fos - an immediate early gene used as a marker of neuronal activity. Part of the ValidAb™ range of highly validated, data-rich antibodies.

Validation data



Product information

Immunogen	Full length recombinant human c-Fos expressed in and purified from E. coli.
Clone number	2H2
Isotype	IgG1
Purification	Protein G affinity chromatography
Concentration	1 mg/ml
Formulation	50% PBS, 50% glycerol with 5mM sodium azide
Predicted species reactivity	Mouse, Rat, Human
Tested species reactivity	Mouse

Tested applications

Applications	IHC(IF)
IHC(IF) optimal concentration	1µg/ml (1:1000 dilution) as tested in 4% PFA fixed mouse brain tissue
Product specific protocols	• Due to the low stability of the c-Fos protein (around a 1hr half life) we recommend perfusion fixation for animal tissues to ensure rapid preservation of protein integrity. A protocol for this is available in Gage et al., 2012. • This product has only been validated in IHC(IF) using sodium citrate antigen retrieval (pH6.0, 80°C for 30 minutes) and therefore it is highly recommended that this method is used in all IHC(IF) experiments using HB8006.
Positive control	c-Fos is expressed at high levels in many cell lines (e.g. HEK293 or HeLa) when serum starved cells are stimulated with serum.
Negative control	Serum starved cell lines (e.g. HEK293 or HeLa) express very low levels of c-Fos.
Open data link	Please follow this link to the OSF

Target information

Other names	• Fos • Cellular oncogene fos • Fos proto-oncogene, AP-1 transcription factor subunit • G0/G1 switch regulatory protein 7 • Proto-oncogene c-Fos • Transcription factor AP-1 subunit c-Fos
UniProt ID	P01100
Gene name	FOS
NCBI full gene name	Fos proto-oncogene, AP-1 transcription factor subunit
Entrez gene ID	2353
Amino acids	380aa (40.7kDa)
Isoforms	c-Fos has three key isoforms: • Isoform 1: canonical 380aa, 40.7kDa • Isoform 2: missing aa1-114, 266aa, 28.9kDa • Isoform 3: missing aa132-167, 344aa, 36.3kDa
Expression	Expressed widely across multiple tissues at low levels. Expression is inducible by a range of factors including cellular activity, growth factors, cytokines and tumour promoters. c-Fos is expressed in neurones where its expression is induced by activity.
Subcellular expression	c-Fos expression is localised to the nucleus
Processing	None
Post translational modifications	Subject to phosphorylation on multiple residues and also possesses multiple SUMO2 binding sites.
Homology (compared to human)	Rat and mouse show a 94.2% and 93.7% identity to human c-Fos in a BLAST search
Similar proteins	The following proteins were identified as being similar to c-Fos in a BLAST search: • FosB - 73.9% identity • FRA-1 - 52.7% identity • FRA-2 - 42.9% identity

Storage & Handling

Storage instructions	-20°C
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

References

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Activation of c-fos in the brain.

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Luna-Illades C et al (2017) Physiology & behavior 179
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