

Rabbit GSK-3beta Polyclonal Antibody | anti-GSK-3beta antibody

GSK-3beta polyclonal antibody

CATALOG # AAA77018	HOST Rabbit	REACTIVITY Human, Mouse, Rat, Bovine	APPLICATIONS Western Blot, Immunohistochemistry, Immunocytochemistry
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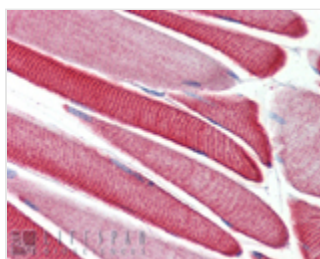
PRODUCT SYNONYMS

GSK-3beta; Polyclonal Antibody; GSK-3beta polyclonal antibody; Glycogen synthase kinase-3beta; pAb; anti-GSK-3beta antibody

PRODUCT SPECIFICATIONS

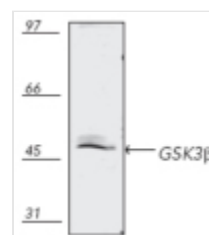
Host	Rabbit
Reactivity	Human, Mouse, Rat, Bovine
Clonality	Polyclonal
Specificity	Recognizes human, mouse, rat and bovine GSK-3beta. Detects a band of ~47kDa by Western blot.
Purity/Purification	Protein A affinity purified.
Form/Format	Liquid. In PBS, pH 7.2, containing 50% glycerol and 0.09% sodium azide.
Sequence Length	420
Applicable Applications for anti-GSK-3beta antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry)
Immunogen	Synthetic peptide corresponding to a portion of rat GSK-3beta. The sequence is completely conserved in human.
Preparation and Storage	Long Term: -20 degree C Avoid freeze/thaw cycles.

IMAGES



IHC (Immunohistochemistry)

Immunohistochemistry analysis of human skeletal muscle tissue stained with GSK-3beta, pAb at 10µg/ml.



WB (Western Blot)

Western blot analysis of human HeLa (heat shocked) cell lysate, probed with GSK3-beta pAb

ADDITIONAL INFORMATION

Related Product Information for anti-GSK-3beta antibody	Glycogen Synthase Kinase 3beta (GSK-3beta) is a unique serine/threonine kinase that is inactivated by phosphorylation. In response to insulin binding, PKB/AKT phosphorylates GSK-3beta on serine 9, which prevents GSK-3beta from phosphorylating glycogen synthase. Unphosphorylated glycogen synthase is active and able to synthesize glycogen. GSK-3beta is also unique in that it requires a substrate that has been phosphorylated by a distinct kinase before it can phosphorylate the substrate. This phosphate priming mechanism explains why phosphorylation of serine 9 inactivates GSK-3beta. The phosphorylated serine binds to the GSK-3beta priming phosphate position and prevents binding of alternative substrates. In addition to insulin signaling, GSK-3beta participates in the Wnt signaling pathway, where it forms a complex with axin, beta-catenin and adenomatous polyposis coli (APC) protein. In the presence of Wnts, GSK-3beta is unable to phosphorylate beta-catenin, which leads to stabilization of beta-catenin. The Wnt pathway inactivates GSK-3beta via the proteins, Dishevelled and FRAT, which disrupt the interaction of GSK-3beta with axin, beta-catenin, and APC. Clinically, there is considerable interest in GSK-3beta inhibitors because they may mimic the effect of insulin or reduce the hyperphosphorylation of Tau that is observed in Alzheimer's Disease.
Product Categories/Family for anti-GSK-3beta antibody	Posttranslational Modifications; Cell Signaling; Proteolysis & Protein Degradation; Cell Death; Stem Cells; Cell & Tissue Markers

NCBI AND UNIPROT INFORMATION

NCBI GI #	125374
NCBI GeneID	84027
UniProt Accession #	P18266
Molecular Weight	46,742 Da
NCBI Official Full Name	Glycogen synthase kinase-3 beta
NCBI Official Synonym Full Names	glycogen synthase kinase 3 beta
NCBI Official Symbol	Gsk3b
NCBI Protein Information	glycogen synthase kinase-3 beta
UniProt Protein Name	Glycogen synthase kinase-3 beta
UniProt Gene Name	Gsk3b
UniProt Synonym Gene Names	GSK-3 beta; FA

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/gsk-3beta-antibody-western-blot-immunohistochemistry-immunocytochemistry-elisa/77018>