

Glycogen Synthase Antibody

✓ 100 µl
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP, F Endogenous	H, M, R	84 kDa	Rabbit**

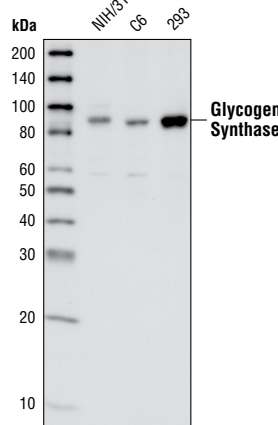
Background: Glycogen synthase (GS) is the key enzyme in the regulation of glycogen synthesis. There are two main isoforms of mammalian GS, the muscle isoenzyme and the liver form (1-2). Muscle GS is expressed in several tissues, and liver GS appears to be tissue specific (3). GS is regulated by multi-site phosphorylation and by the binding of allosteric ligands. Phosphorylation leads to inactivation of GS, but activity is restored by the binding of the allosteric activator glucose-6-phosphate, which induces its dephosphorylation and activation (4).

Specificity/Sensitivity: Glycogen Synthase Antibody detects endogenous levels of total muscle glycogen synthase protein.

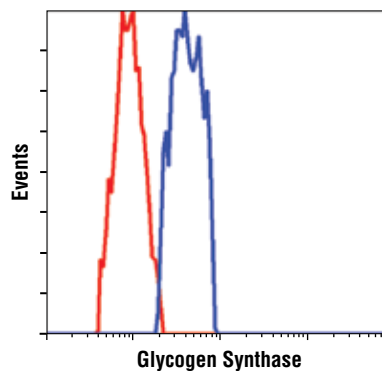
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide derived from the sequence of human glycogen synthase. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Browner, M.F. et al. (1989) *Proc. Natl. Acad. Sci. USA* 86, 1443-1447.
- (2) Bai, G. et al. (1990) *J. Biol. Chem.* 265, 7843-7848.
- (3) Roach, P.J. et al. (1998) *J. Basic Clin. Physiol. Pharmacol.* 9, 139-151.
- (4) Villar-Palasi, C. and Guinovart, J.J. (1997) *FASEB J.* 11, 544-558.



Western blot analysis of extracts from NIH/3T3, C6 and 293 cells, using Glycogen Synthase Antibody.



Flow cytometric analysis of untreated 293 cells, using Glycogen Synthase Antibody (blue) compared to a nonspecific negative control antibody (red).

Entrez-Gene ID #2997
Swiss-Prot Acc. #P13807

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

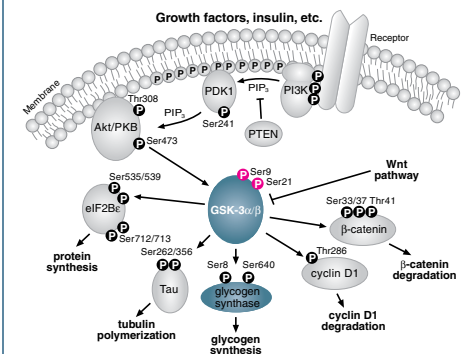
**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50
Flow Cytometry	1:200

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.



IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.