

GPI Antibody

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H Mk	Endogenous	60	Rabbit	#P06744	2821

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

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.

Specificity/Sensitivity

GPI Antibody recognizes endogenous levels of total G6PI protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro8 of human G6PI protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Glucose-6-phosphate isomerase (GPI) is a multi-functional protein belonging to the glucose phosphate isomerase family (1,2). As an intracellular metabolic enzyme, GPI plays a pivotal role in glycolysis and gluconeogenesis by catalyzing the interconversion of D-glucose-6-phosphate and D-fructose-6-phosphate (3). GPI is also secreted, where it functions as a cytokine (referred to as Autocrine Motility Factor, AMF), acting via the E3-ubiquitin-protein ligase AMFR/gp78 (4). In normal tissues, GPI/AMF has been shown to promote both immune cell maturation and neuronal cell survival (5,6). It is also secreted in abundance by some tumor cells (7), where it has been shown to promote tumor cell migration and metastasis (8,9).

Background References

1. Haga, A. et al. (2000) *Biochim Biophys Acta* 1480, 235-44.
2. Jeffery, C.J. et al. (2000) *Biochemistry* 39, 955-64.
3. Kim, J.W. and Dang, C.V. (2005) *Trends Biochem Sci* 30, 142-50.
4. Fairbank, M. et al. (2009) *Mol Biosyst* 5, 793-801.
5. Gurney, M.E. et al. (1986) *Science* 234, 574-81.
6. Gurney, M.E. et al. (1986) *Science* 234, 566-74.
7. Lucarelli, G. et al. (2015) *Medicine (Baltimore)* 94, e2117.
8. Liotta, L.A. et al. (1986) *Proc Natl Acad Sci U S A* 83, 3302-6.
9. Funasaka, T. and Raz, A. (2007) *Cancer Metastasis Rev* 26, 725-35.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary 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 Blotting

Cross-Reactivity Key

H: Human **Mk:** Monkey

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