

Phospho-NR3C1(S211) Blocking Peptide
Synthetic peptide
Catalog # BP3735a**Specification**

Phospho-NR3C1(S211) Blocking Peptide - Product Information

Primary Accession [P04150](#)
Other Accession [P06537](#), [NP_001018085.1](#), [NP_001018087.1](#)

Phospho-NR3C1(S211) Blocking Peptide - Additional Information

Gene ID 2908

Other Names

Glucocorticoid receptor, GR, Nuclear receptor subfamily 3 group C member 1, NR3C1, GRL

Target/Specificity

The synthetic peptide sequence is selected from aa 207-217 of HUMAN NR3C1

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Phospho-NR3C1(S211) Blocking Peptide - Protein Information

Name NR3C1 ([HGNC:7978](#))

Synonyms GRL

Function

Receptor for glucocorticoids (GC) (PubMed:27120390, PubMed:37478846). Has a dual mode of action: as a transcription factor that binds to glucocorticoid response elements (GRE), both for nuclear and mitochondrial DNA, and as a modulator of other transcription factors (PubMed:28139699). Affects inflammatory responses, cellular proliferation and differentiation in target tissues. Involved in chromatin remodeling (PubMed:9590696). Plays a role in rapid mRNA degradation by binding to the 5' UTR of target mRNAs and interacting with PNRC2 in a ligand-dependent manner which recruits the RNA helicase UPF1 and the mRNA-decapping enzyme DCP1A, leading to RNA decay (PubMed:25775514). Could act as

a coactivator for STAT5-dependent transcription upon growth hormone (GH) stimulation and could reveal an essential role of hepatic GR in the control of body growth (By similarity).

Cellular Location

[Isoform Alpha]: Cytoplasm. Nucleus. Mitochondrion. Cytoplasm, cytoskeleton, spindle. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Chromosome {ECO:0000250|UniProtKB:P06537}. Nucleus, nucleoplasm {ECO:0000250|UniProtKB:P06537}. Note=After ligand activation, translocates from the cytoplasm to the nucleus (PubMed:30698747). The hormone-occupied receptor undergoes rapid exchange between chromatin and the nucleoplasmic compartment (By similarity). In the presence of NR1D1 shows a time-dependent subcellular localization, localizing to the cytoplasm at ZT8 and to the nucleus at ZT20 (By similarity). Lacks this diurnal pattern of localization in the absence of NR1D1, localizing to both nucleus and the cytoplasm at ZT8 and ZT20 (By similarity). Upon dexamethasone binding associates with the glucocorticoid response elements of target genes (By similarity) {ECO:0000250|UniProtKB:P06537, ECO:0000269|PubMed:30698747} [Isoform Alpha-B]: Nucleus. Cytoplasm Note=After ligand activation, translocates from the cytoplasm to the nucleus.

Tissue Location

Widely expressed including bone, stomach, lung, liver, colon, breast, ovary, pancreas and kidney (PubMed:25847991). In the heart, detected in left and right atria, left and right ventricles, aorta, apex, intraventricular septum, and atrioventricular node as well as whole adult and fetal heart (PubMed:10902803) [Isoform Alpha-2]: Widely expressed.

Phospho-NR3C1(S211) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

Phospho-NR3C1(S211) Blocking Peptide - Images

Phospho-NR3C1(S211) Blocking Peptide - Background

The protein encoded by this gene is a receptor for glucocorticoids that can act as both a transcription factor and as a regulator of other transcription factors. This protein can also be found in heteromeric cytoplasmic complexes along with heat shock factors and immunophilins. The protein is typically found in the cytoplasm until it binds a ligand, which induces transport into the nucleus. Mutations in this gene are a cause of glucocorticoid resistance, or cortisol, resistance. Alternate splicing, the use of at least three different promoters, and alternate translation initiation sites result in several transcript variants encoding the same protein or different isoforms, but the full-length nature of some variants has not been determined.

Phospho-NR3C1(S211) Blocking Peptide - References

Bosker, F.J., et al. Mol. Psychiatry (2010) In press :
Inkster, B., et al. Neuroimage (2010) In press :
Geelhoed, M.J., et al. BMC Med. Genet. 11, 39 (2010) :
Te Winkel, M.L., et al. Haematologica (2009) In press :
Szilagyi, K., et al. Neuro Endocrinol. Lett. 30(5):629-636(2009)
Tian, S., et al. Biochem. J. 367 (PT 3), 907-911 (2002) :
Itoh, M., et al. Mol. Endocrinol. 16(10):2382-2392(2002)
Wang, Z., et al. J. Biol. Chem. 277(29):26573-26580(2002)

Wallace, A.D., et al. J. Biol. Chem. 276(46):42714-42721(2001)
Krstic, M.D., et al. Mol. Cell. Biol. 17(7):3947-3954(1997)
Giffin, W., et al. J. Biol. Chem. 272(9):5647-5658(1997)
Bodwell, J.E., et al. J. Steroid Biochem. Mol. Biol. 52(2):135-140(1995)
Subramaniam, M., et al. J. Cell. Biochem. 50(4):411-424(1992)
Cadepond, F., et al. Exp. Cell Res. 201(1):99-108(1992)
Scherrer, L.C., et al. J. Steroid Biochem. Mol. Biol. 41 (3-8), 719-721 (1992) :
Bodwell, J.E., et al. J. Biol. Chem. 266(12):7549-7555(1991)
Hurley, D.M., et al. J. Clin. Invest. 87(2):680-686(1991)
Plotkin, L.L., et al. Med Tekh 3, 42-43 (1975) :