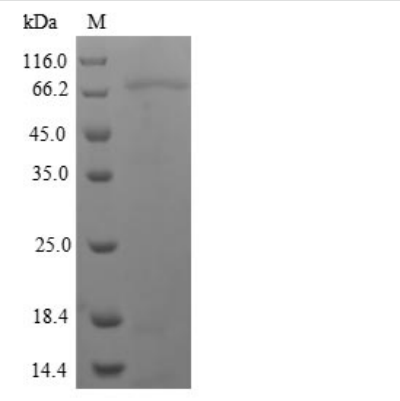
Recombinant Human Nuclear receptor subfamily 1 group I member 2 (NR1I2)

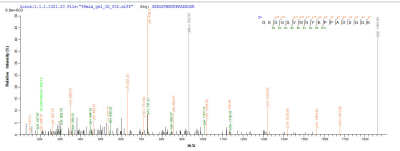
Product Code	CSB-EP016048HU
Relevance	Nuclear receptor that binds and is activated by variety of endogenous and xenobiotic compounds. Transcription factor that activates the transcription of multiple genes involved in the metabolism and secretion of potentially harmful xenobiotics, drugs and endogenous compounds. Activated by the antibiotic rifampicin and various plant metabolites, such as hyperforin, guggulipid, colupulone, and isoflavones. Response to specific ligands is species-specific. Activated by naturally occurring steroids, such as pregnenolone and progesterone. Binds to a response element in the promoters of the CYP3A4 and ABCB1/MDR1 genes.
Abbreviation	Recombinant Human NR1I2 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	O75469
Alias	Orphan nuclear receptor PAR1 Orphan nuclear receptor PXR Pregnane X receptor Steroid and xenobiotic receptor
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MEVRPKESWNHADFVHCEDTESVPGKPSVNADEEVGGPQICRVCGDKATGY HFNVMTCEGCKGFFRRAMKRNARLRCPFRKGACEITRKTRRQCQACRLRKC LESGMKKEMIMSDEAVEERRALIKRKKSERTGTQPLGVQGLTEEQRMMIREL MDAQMKTFDTTFSHFKNFRLPGVLSSGCELPESLQAPSREEAAKWSQVRKDL CSLKVSLQLRGEDGSVWNYKPPADSGGKEIFSLLPHMADMSTYMFKGIISFAK VISYFRDLPIEDQISLLKGAAFELCQLRFNTVFNAETGTWECGRLSYCLEDTAG GFQQLLLEPMLKFHYMLKKLQLHEEEYVLMQAISLFSPDRPGVLQHRVVDQLQ EQFAITLKSYIECNRPQPAHRFLFLKIMAMLTELRSINAQHTQRLLRIQDIHPFAT PLMQELFGITGS
Research Area	Signal Transduction
Source	E.coli
Target Names	NR1I2
Protein Names	Recommended name: Nuclear receptor subfamily 1 group I member 2 Alternative name(s): Orphan nuclear receptor PAR1 Orphan nuclear receptor PXR Pregnane X receptor Steroid and xenobiotic receptor Short name= SXR
Expression Region	1-434aa

Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-SUMO-tagged and C-terminal Myc-tagged
Mol. Weight	69.8kDa
Protein Length	Full Length

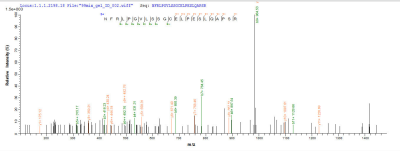
Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP016048HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) NR1I2.



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Description

The recombinant Human NR1I2 was expressed with the amino acid range of 1-434. This NR1I2 protein is theoretically predicted to have a molecular weight of 69.8 kDa. This NR1I2 protein is produced using e.coli expression system. The NR1I2 coding gene included the N-terminal 10xHis-SUMO tag and C-terminal Myc tag, which simplifies the detection and purification processes of the recombinant NR1I2 protein in following stages of expression and purification.

Nuclear receptor subfamily 1 group I member 2 (NR1I2), also known as the pregnane X receptor (PXR), is a nuclear receptor involved in the regulation of various metabolic processes. NR1I2 acts as a ligand-activated transcription factor, responding to a diverse array of xenobiotics, including drugs and environmental substances. Upon activation, NR1I2 forms heterodimers with the retinoid X receptor (RXR) and binds to specific response elements in the DNA, leading to the regulation of target gene expression. Its primary role is in the detoxification and elimination of foreign compounds by modulating the expression of drug-metabolizing enzymes and transporters. Research on NR1I2 spans drug metabolism, pharmacology, and toxicology, exploring its impact on drug interactions and therapeutic responses.

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.