

Recombinant Human Peptidylprolyl Isomerase G (Cyclophilin G)

Cat. No. PPIG-1813H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Cyclophilin G, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography. MW = 21.6 kDa (195aa).
Species	Human
Source	E.coli
Description	Peptidyl-prolyl cis-trans isomerase G (PPIG), also known as Cyclophilin G, is a member of peptidyl-prolyl cis-trans isomerase family (PPIases). This protein catalyzes the cis-trans isomerization of proline imidic peptide bonds in oligopeptides and is implicated in the folding, transport, and assembly of proteins. It is localized to the nuclear speckles, a nuclear compartment rich in splicing factors, and interacts with the splicing factors SC35 and pinin. Cyclophilin G also may play an important role in the regulation of pre-mRNA splicing.
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MGIKVQRPRC FFDIANNQP AGRVVFELFS DVCPKTCENF RCLCTGEKGT GKSTQKPLHY KSCLFHRVVK DFMVQGGDFS EGNGRGGESI YGGFFEDES AVKHNKEFL SMANRGKDTN GSQFFITTKP TPHLDGHHVV FGQVISGQEV VREIENQKTD AASKPFAEVR ILSCG
Form	Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol.
Purity	> 95% by SDS – PAGE.

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Concentration	1 mg/ml (determined by Bradford assay).
Biological activity	Specific activity is > 200 nmoles/min/mg, and is defined as the amount of enzyme that cleaves 1umole of suc-AAFP-pNA per minute at 25°C in Tris-Hcl pH8.0 using chymotrypsin.
Activity Assay	1. Prepare 170ul assay buffer into a suitable container and pre-chill on ice before use: The final concentrations are 200 mM Tris-Hcl, pH 8.0, and 20nM chymotrypsin.2. Add 1ug of recombinant Cyclophilin G protein to assay buffer. 3. Mix by inversion and equilibrate to 1°C and monitor the A405nm until the value is constant using a spectrophotometer.4. Add 20ul pre-chilled 5mM suc-AAFP-pNA. (Substrate was dissolved in TFE that contained 460mM LiCl to a concentration of 3 mM)5. Record the increase in A405 nm for 30 minutes at 25°C.
Storage	Can be stored at +4°Cshort term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name	PPIG peptidylprolyl isomerase G (cyclophilin G) [Homo sapiens]
Synonyms	PPIG; peptidylprolyl isomerase G (cyclophilin G); CYP; SRCyp; CARS-Cyp; MGC133241; peptidylprolyl isomerase G; Clk-associating RS-cyclophilin; peptidyl-prolyl isomerase G (cyclophilin G); EC 5.2.1.8; CARS-cyclophilin; CASP10; SR-cyclophilin; SR-cyclophilin; SR-cyp; Cyclophilin G; PPIase G; Peptidyl-prolyl isomerase G; Peptidyl-prolyl cis-trans isomerase G; Rotamase G
Gene ID	9360
mRNA Refseq	NM_004792

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Protein Refseq	NP_004783
MIM	606093
UniProt ID	Q13427
Chromosome Location	2q31.1
Function	cyclosporin A binding; isomerase activity; peptidyl-prolyl cis-trans isomerase activity
PDB rendering based on 2gw2.	