

# Enzymes

Protein Catalogue

## PORCN - Protein-cysteine N-palmitoyltransferase porcupine

### Product specification

**Acronym:** PORCN

**Class:** Enzyme

**Origin:** Human

**Molecular weight:** 51 kDa

**Application:** Screening & display technologies, Antibody development, Structural Biology

**Purity:** >50%

**Activity:** To be tested

**Length:** Full Length

**TMD:** 8

**Biological function:** Wnt signaling pathway

### Product description

PORCN is an endoplasmic reticulum (ER) enzyme, belonging to the « membrane bounded O-acyltransferase » family. It allows the palmitoylation of proteins involved in the Wnt (Wingless and int homologue) pathway. In the ER, the active site of PORCN presents a histidine residue which has to be protonated for the protein activity.

**Protein Source:** hPORCN wild type protein (Human PORCN)

Fig.1: AA sequence of hPORCN protein

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10      20      30      40      50
NATFSRQEF  QQLLQCCLLP TAQQGLDQIN LLLAECLACR LLNRLGLPSY
 66      76      86      96     106
LRI AGTVAGG  FFSLYHFFQL IMVWVYLLCL LCYLVLFCCR HISSIRGVPLS
110     120     130     140     150
VTILYLLMS  EHHMNDVTW  HKHRGAQHIV AMKAVSLGFD LDRGEVSTVP
160     170     180     190     200
SPVEFMGYLY FVGTIVFGPW ISFHSYLQAV QGRPLSCRML QKVARSLALA
210     220     230     240     250
LLCLVLSILY GPYLFPYFIP  LVGDKLLRNK KKCAQGIIVK VLRAYESAVS
260     270     280     290     300
EHEMYPVGS  ISEKIDILAG  RSH FFKIPI  HMDI EVNEPI  NVHLPKSMVF
310     320     330     340     350
VVTSWNLPMG YVLLNMYVFKN ALRLGTFSAV  LVTYASALL HGFSFHLAAV
360     370     380     390     400
LLSLAFITYV EHVLRKRLAR  ILSACVLSKR CPPDCSHQHR LGLGRALHL
410     420     430     440     450
LFGALAIPL  NYLGLSFDVD VDDTTEEQGY GMYVTVHKUS  ELSNASHMVT
460
FGCWIFYRLE G

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**Affinity Tag:** Histidine tag fused to the N-terminal end of the protein.

**Production conditions:** hPORCN is expressed in a cell-free expression system. 100 µg can be produced and qualified in about 1 week.

## Quality analysis

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**Purity:** Typically >50% as determined by SDS-Page and Coomassie Blue staining.

**Purification procedure:** As standard, hPORCN proteoliposomes are purified on a sucrose gradient. Further purification steps can be added if required.

*Fig.2: SDS-PAGE after Coomassie blue staining of hPORCN proteoliposome following purification on a sucrose gradient. NC: Negative control.*



After purification on a sucrose gradient, the protein (red square) appears at the right size on polyacrylamide gel.

## Formulation

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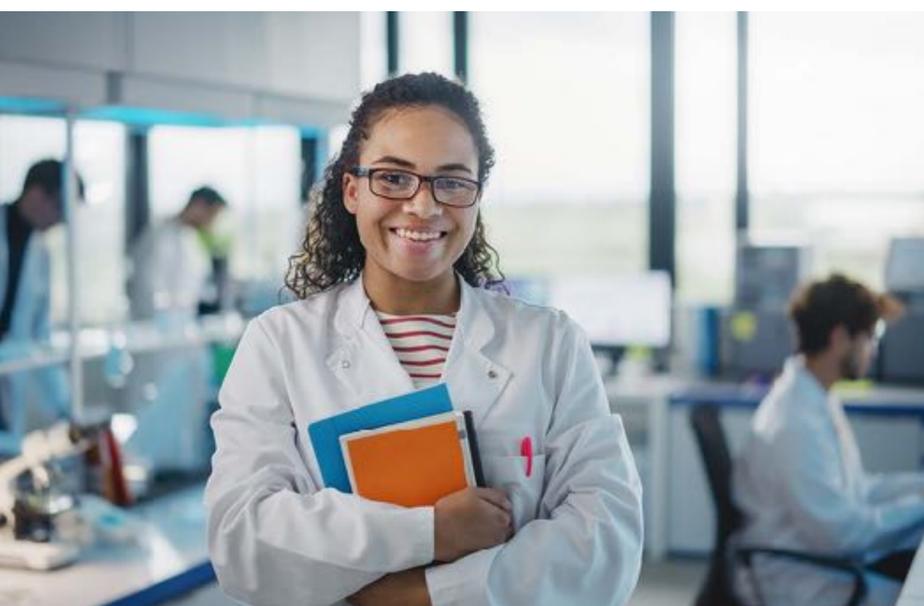
**Buffer:** Available in Tris 50mM, pH 7.5. Other buffers or customized formulation can be provided upon request.

**Customized Hydrophobic matrix:** Customized formulation with specific lipids like PEGylated or biotinylated lipids can be used upon request, as well as targeting molecules.

**Storage/Stability:** Store at +4°C for up to one week or several months at -80°C. Aliquot for storage. Do not freeze-thaw after aliquoting.

**Use restrictions:** For life science research use only.

**Available sizes:** 10µg, 20µg, 100 µg, 200 µg, 500 µg, bulk



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