

Lanosterol synthase/LSS Protein, Human (P.pastoris, His)

Cat. No.:	HY-P72309
Synonyms:	OSCLanosterol synthase; Oxidosqualene--lanosterol cyclase; OSC
Species:	Human
Source:	P. pastoris
Accession:	P48449 (T2-P732)
Gene ID:	4047
Molecular Weight:	Approximately 86.0 kDa

PROPERTIES

AA Sequence

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TEGTC LRRRG
G
RAGREQTGLE
FYVGLQAEDG
YREEIVRYLR
ILGVGPDDPD
YSWEG LNTLF
CYAVRLSAAE
DELYTPHSWL
IVADDRFTKS
SRIPDYLWVG
HRPEFSSCLQ
SFSTLDCGWI
LCDAVAVLLN
DIMIDYTYVE
GLEFCRRQQR
YRDGTACA EV
QSAQSQIHNT
PNGDWPQENI
YPERALAGHP

PYKTEPATDL
AYALGLDTKN
HWTGDYGGPL
SVQLPDGGWG
LVRARNILHK
PEMWLF PDWA
DPLVQSLRQE
LRVVYALLNL
ISIGPISKTI
LDGMKMQGTN
KAHEFLRLSQ
VSDCTAEALK
MRNPDGGFAT
CTSAVMQALK
ADGSWEGSWG
SRACDFLLSR
CWAMMGLMAV
AGVFNKSCAI

GRWRLNCERG
YFKDLPKAHT
FLLPGLLITC
LHIEDKSTVF
KGGAVAIPSW
PAHPSTLWCH
LYVEDFASID
YEHHS AHLR
NMLVRWYVDG
GSQIWDTAFA
VPDNPPDYQK
AVLLLQEKCP
YETKRGGHLL
YFHKRFPEHR
VCFTYGTWFG
QMADGGWGED
RHPDIEAQER
SYTSYRNIFP

RQTWTYLQDE
AFEGALNGMT
HVARIPLPAG
GTALNYVSLR
GKFWLAVLNV
CRQVYLPMSY
WLAQRNNVAP
QRAVQKLYEH
PASTAFQEHV
IQALLEAGGH
YYRQMRKGGF
HVTEHIPRER
ELLNPSEVFG
AAEIRETLTQ
LEAFACMGQT
FESCEERRY L
GVRCLLEKQL
IWALGRFSQL

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Biological Activity The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.

Appearance Lyophilized powder.

Formulation Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4.

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O.

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION**Background**

Lanosterol synthase (LSS) emerges as a pivotal enzyme in the cholesterol biosynthesis pathway, orchestrating the cyclization of (S)-2,3 oxidosqualene into lanosterol. This catalytic activity holds a key role in the formation of the sterol nucleus, a critical step in cholesterol production. Beyond its role in cholesterol biosynthesis, LSS has been implicated in potential regulatory functions related to lens protein aggregation, suggesting a role in maintaining lens transparency. The enzymatic action of LSS not only contributes to fundamental cellular processes but may also extend its impact to specialized functions, highlighting its significance in cellular and physiological contexts.

Caution: Product has not been fully validated for medical applications. For research use only.

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