

## Group XV phospholipase A2/Pla2g15, Mouse (His, myc)

<b>Cat. No.:</b>	HY-P72293
<b>Synonyms:</b>	Group XV phospholipase A2; 1-O-acylceramide synthase; ACS; LLPL; Lysosomal phospholipase A2
<b>Species:</b>	Mouse
<b>Source:</b>	E. coli
<b>Accession:</b>	Q8VEB4 (A34-P412)
<b>Gene ID:</b>	192654
<b>Molecular Weight:</b>	Approximately 50.5 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> AQRHPPVVLV   PGDLGNQLEA   KLDKPKVVHY   LCSKKTDSYF TLWLNLELLL   PVIIDCWIDN   IRLVYNRTSR   ATQFPDGV DV RVPGFGETFS   MEFLDPSKRN   VGSYFYTMVE   SLVGWGYTRG EDVRGAPYDW   RRAPNENGPY   FLALREMI EE   MYQMYGGPVV LVAHSMGNVY   MLYFLQRQPQ   VWKDKYIHAF   VSLGAPWGGV AKTLRVLASG   DNNRIPVIGP   LKIREQQRSA   VSTSWLLPYN HTWSHEKVFV   YTPTTNYTLR   DYHRFFRDIG   FEDGWFM RQD TEGLVEAMTP   PGVELHCLYG   TGVPTPNSFY   YESFPDRDPK ICFGDGDGTV   NLESVLQCQA   WQSRQEHRVS   LQELPGSEHI EMLANATTLA   YLKRVLLEP           </pre>
<b>Biological Activity</b>	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4.
<b>Endotoxin Level</b>	<26 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	Group XV phospholipase A2 (Pla2g15) exhibits dual calcium-independent phospholipase and O-acyltransferase activities,
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potentially contributing to glycerophospholipid homeostasis and the remodeling of acyl groups in acidic cellular compartments. The enzyme catalyzes the hydrolysis of the ester bond of the fatty acyl group at sn-1 or sn-2 positions of phospholipids, demonstrating both phospholipase A1 and A2 activities, and transfers it to the hydroxyl group at the first carbon of lipophilic alcohols through O-acyltransferase activity. Pla2g15 prefers fatty acyl donors such as phosphatidylcholines, phosphatidylethanolamines, phosphatidylglycerols, and phosphatidylserines, favoring sn-2 over sn-1 deacylation of unsaturated fatty acyl groups. Additionally, it selectively hydrolyzes the sn-1 fatty acyl group of truncated oxidized phospholipids, potentially participating in the detoxification of reactive oxidized phospholipids during oxidative stress. Pla2g15 plays a vital role in phospholipid degradation in alveolar macrophages, suggesting implications in pulmonary surfactant clearance. At neutral pH, it hydrolyzes the sn-1 fatty acyl group of lysophosphatidylcholines.

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

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