

## Product datasheet

# Recombinant Rat Lipocalin-2 / NGAL protein ab207148

1 Image

### Description

<b>Product name</b>	Recombinant Rat Lipocalin-2 / NGAL protein	
<b>Purity</b>	> 95 % SDS-PAGE. ab207148 was purified using conventional chromatography techniques.	
<b>Expression system</b>	Escherichia coli	
<b>Accession</b>	<b><u>P30152</u></b>	
<b>Protein length</b>	Full length protein	
<b>Animal free</b>	No	
<b>Nature</b>	Recombinant	
<b>Species</b>	Rat	
<b>Sequence</b>	MGSSHHHHHHSSGLVPRGSHMGSQDSTQNLIPAPPLISV PLQPGFWTERF QGRWFVVGLAANAVQKERQSRFTMYSTIYELQEDNSYNV TSILVRGQGCR YWIRTFVPSSRPGQFTLGNIHSPQIQSYDVQVADTDYDQF AMVFFQKTS ENKQYFKVTLYGRTKGLSDELKERFVSFAKSLGLKDNV FSVPTDQCID N	
<b>Predicted molecular weight</b>	23 kDa including tags	
<b>Amino acids</b>	21 to 198	
<b>Tags</b>	His tag N-Terminus	
<b>Additional sequence information</b>	NP_570097. Mature form without signal peptide.	

### Specifications

Our **Abpromise guarantee** covers the use of **ab207148** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Applications</b>	Mass Spectrometry SDS-PAGE
<b>Mass spectrometry</b>	MALDI-TOF
<b>Form</b>	Liquid

## Preparation and Storage

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### Stability and Storage

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 7.40

Constituents: 80% PBS, 20% Glycerol (glycerin, glycerine)

## General Info

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### Function

Iron-trafficking protein involved in multiple processes such as apoptosis, innate immunity and renal development. Binds iron through association with 2,5-dihydroxybenzoic acid (2,5-DHBA), a siderophore that shares structural similarities with bacterial enterobactin, and delivers or removes iron from the cell, depending on the context. Iron-bound form (holo-24p3) is internalized following binding to the SLC22A17 (24p3R) receptor, leading to release of iron and subsequent increase of intracellular iron concentration. In contrast, association of the iron-free form (apo-24p3) with the SLC22A17 (24p3R) receptor is followed by association with an intracellular siderophore, iron chelation and iron transfer to the extracellular medium, thereby reducing intracellular iron concentration. Involved in apoptosis due to interleukin-3 (IL3) deprivation: iron-loaded form increases intracellular iron concentration without promoting apoptosis, while iron-free form decreases intracellular iron levels, inducing expression of the proapoptotic protein BCL2L11/BIM, resulting in apoptosis. Involved in innate immunity, possibly by sequestering iron, leading to limit bacterial growth.

### Tissue specificity

Expressed in bone marrow and in tissues that are prone to exposure to microorganism. High expression is found in bone marrow as well as in uterus, prostate, salivary gland, stomach, appendix, colon, trachea and lung. Not found in the small intestine or peripheral blood leukocytes.

### Sequence similarities

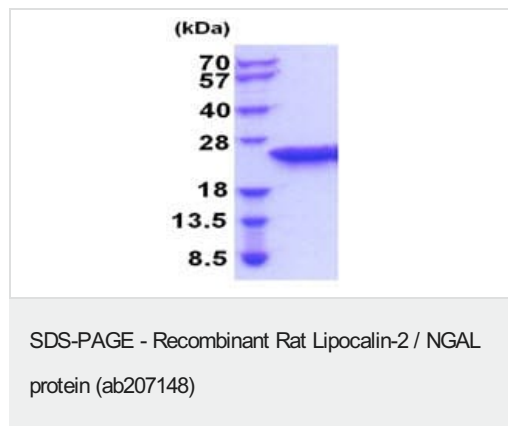
Belongs to the calycin superfamily. Lipocalin family.

### Cellular localization

Secreted. Upon binding to the SLC22A17 (24p3R) receptor, it is internalized.

## Images

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15% SDS-PAGE analysis of 3 µg ab207148.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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