

## Datasheet: PHP302

<b>Description:</b>	RECOMBINANT HUMAN NGAL
<b>Name:</b>	NGAL
<b>Other names:</b>	Lipocalin-2
<b>Format:</b>	Rec. Protein
<b>Product Type:</b>	Recombinant Protein
<b>Quantity:</b>	10 µg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
ELISA	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified recombinant protein - lyophilized
<b>Reconstitution</b>	Centrifuge vial prior to reconstitution. Reconstitute to 100 µg/ml by adding 100 µl ddH <sub>2</sub> O. Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution. Do not vortex.
<b>Preparation</b>	Recombinant protein expressed in <i>E. coli</i> and purified by ion exchange chromatography
<b>Source</b>	E.coli
<b>Buffer Solution</b>	50 mM Tris-HCl, pH8.0, 0.15 M NaCl
<b>Preservative Stabilisers</b>	1.0% Trehalose
<b>Approx. Protein Concentrations</b>	100 µg/ml after reconstitution

**External Database  
Links**

**UniProt:**

[P80188](#)

[Related reagents](#)

**Entrez Gene:**

[3934](#)

LCN2

[Related reagents](#)

**Synonyms**

HNL, NGAL

**Product Information**

**Recombinant Human NGAL**

Neutrophil Gelatinase-Associated Lipocalin (NGAL) is also known as lipocalin-2, 24 kDa alpha-2-microglobulin-related subunit of MMP-9 and siderocalin. NGAL is a 198 amino acid 25 kDa secreted protein which possesses a lipid binding domain which enables it to bind small hydrophobic ligand molecules such as bacterial siderophores ([Bauvois & Susin 2018](#), [Abella \*et al.\* 2015](#)). As well as the 25 kDa form, NGAL can exist as a 46 kDa homodimer and a 130 kDa heterodimer with MMP-9. The interaction with MMP-9 occurs in the extracellular space upon secretion of both proteins. It is through this interaction that MMP-9 proteolytic activity can be inhibited ([Chakraborty \*et al.\* 2012](#)).

NGAL is expressed in various cell types including adipocytes, hepatocytes, pneumocytes, splenocytes, mesangial and microglial cells. NGAL has also been observed circulating at low levels in urine and blood of healthy subjects (40-109 ng/ml) . However it is overexpressed during various inflammatory, metabolic, neurologic and cancer pathologies. The higher levels of NGAL expression in these diseases have been correlated with disease severity and poor prognosis ([Bauvois & Susin 2018](#), [Chakraborty \*et al.\* 2012](#)).

This recombinant Human NGAL can be used to create a standard curve in a sandwich ELISA with purified Mouse anti Human NGAL antibody, clone D11-6D10 ([MCA6198GA](#)) as a capture antibody and biotinylated Mouse anti Human NGAL antibody, clone D02-7D4 ([MCA6199B](#)) as the detection antibody.

**Protein Molecular  
Weight**

22.2 kDa

**Purity**

≥90 % determined by coomassie blue staining of a reducing SDS-PAGE gel

**Amino Acid Sequence**

QDSTSDLIPA PPLSKVPLQQ NFQDNQFQ GK WYVVGLAGNA ILREDKDPQK  
MYATIYELKE DKSYNVTSVL FRKKKCDYWI RTFVPGCQPG EFTLGNIKSY  
PGLTSYLVRV VSTNYNQHAM VFFKKVSQNR EYFKITLYGR TKELTSELKE  
NFIRFSKSLG LPENHIVFPV PIDQCIDG

**Storage**

Prior to reconstitution store at -70°C. Following reconstitution store at -80°C.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the protein. Should this product contain a precipitate we recommend

microcentrifugation before use.

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<b>Guarantee</b>	Guaranteed for 3 months from the date of reconstitution or until the date of expiry, whichever comes first. Please see label for expiry date.
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20394 available at: <a href="https://www.bio-rad-antibodies.com/SDS/PHP302">https://www.bio-rad-antibodies.com/SDS/PHP302</a> 20394
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Useful Reagents

[MOUSE ANTI HUMAN NGAL \(MCA6198GA\)](#)

[MOUSE ANTI HUMAN NGAL:Biotin \(MCA6199B\)](#)

### ELISA Matched Pair - Capture Antibody

[MOUSE ANTI HUMAN NGAL \(MCA6198GA\)](#)

### ELISA Matched Pair - Detection Antibody

[MOUSE ANTI HUMAN NGAL:Biotin \(MCA6199B\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
'M433652:241118'

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