


## Product datasheet

### Anti-Prolactin Receptor/PRL-R antibody [U5] ab2772

★★★★★ [3 Abreviews](#) [20 References](#) [6 Images](#)

#### Overview

<b>Product name</b>	Anti-Prolactin Receptor/PRL-R antibody [U5]
<b>Description</b>	Mouse monoclonal [U5] to Prolactin Receptor/PRL-R
<b>Host species</b>	Mouse
<b>Specificity</b>	Detects prolactin (PRL) receptor.
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, IHC-P, ICC/IF, IP, Inhibition Assay, IHC-Fr, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Rat, Sheep, Rabbit, Horse, Human, Pig <b>Predicted to work with:</b> Non human primates 
<b>Immunogen</b>	Full length native protein (purified) corresponding to Rat Prolactin Receptor/PRL-R. Purified rat liver PRL receptor.
<b>Epitope</b>	This antibody has been shown to react with the extracellular portion of the receptor, but not in the ligand binding domain.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	Preservative: 0.05% Sodium azide Constituent: PBS
<b>Purity</b>	Protein G purified
<b>Primary antibody notes</b>	Prolactin (PRL) is a hormone involved in a variety of important functions including ion transport and osmoregulation, stimulation of milk, protein synthesis as well as the regulation of numerous reproductive functions. PRL exerts its influence on different cell types through a signal transduction pathway which begins with the binding of the hormone to a transmembrane PRL receptor.

Immunoreactive PRL receptor, a member of the cytokine receptor family, varies in size (short and long forms) with tissue source and species, from ~40 kDa to 100 kDa. The PRL receptor consists of at least three separate domains: an extracellular region with 5 cysteines which contains the prolactin binding site, a single transmembrane domain and a cytoplasmic region, the length of which appears to influence ligand binding and regulate cellular function.

<b>Clonality</b>	Monoclonal
<b>Clone number</b>	U5
<b>Isotype</b>	IgG1

## Applications

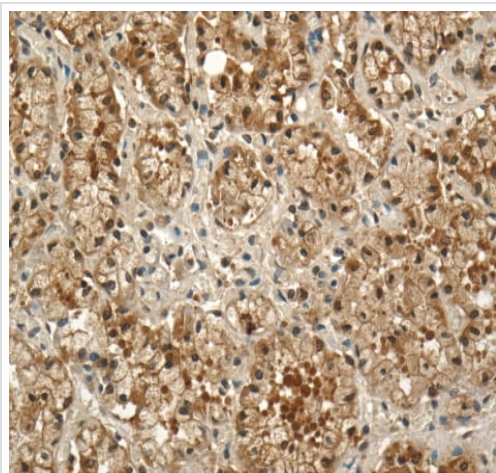
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab2772 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		Use 2µg for 10 <sup>6</sup> cells. <b>ab170190</b> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
IHC-P	★★★★★ (2)	Use at an assay dependent concentration.
ICC/IF		1/20.
IP		Use at an assay dependent concentration.
Inhibition Assay		Use at an assay dependent concentration.
IHC-Fr	★★★★★ (1)	Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 70 kDa. This antibody detects an ~40 kDa protein and an ~100 kDa protein representing both the short and long forms of the PRL receptor, respectively, in various tissues.ab2772, after biotinylation, has been used to detect Human lymphocyte PRL receptor by FACS. ab2772 does not inhibit the interaction of

## Target

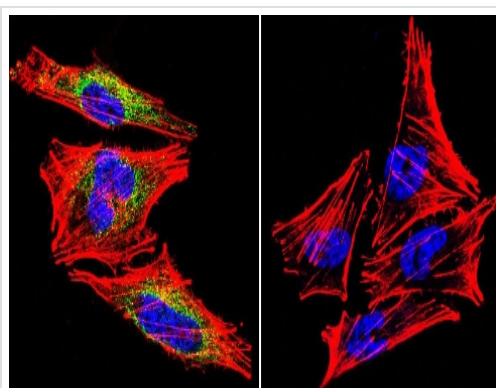
<b>Function</b>	This is a receptor for the anterior pituitary hormone prolactin (PRL). Isoform 4 is unable to transduce prolactin signaling. Isoform 6 is unable to transduce prolactin signaling.
<b>Tissue specificity</b>	Expressed in breast, placenta, kidney, liver and pancreas.
<b>Sequence similarities</b>	Belongs to the type I cytokine receptor family. Type 1 subfamily. Contains 2 fibronectin type-III domains.
<b>Domain</b>	The WSXWS motif appears to be necessary for proper protein folding and thereby efficient intracellular transport and cell-surface receptor binding. The box 1 motif is required for JAK interaction and/or activation.

## Images



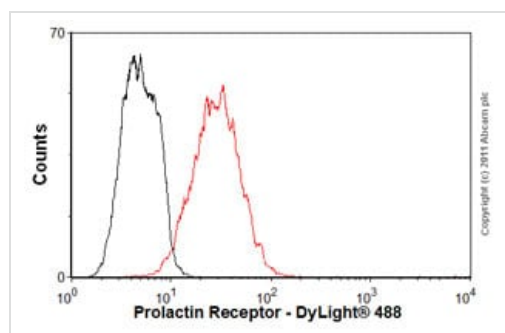
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Prolactin Receptor/PRL-R antibody [U5] (ab2772)

Mammary gland tissue from lactating light horse mare was incubated with ab2772 at 1:100 for 1 hour at 23°C and for 24 hours at 4°C. A biotin-conjugated goat anti-mouse IgG was used as the secondary antibody (23°C for 1 hour). Development using avidin-biotin complex 23°C for 1 hour plus 3,3-diaminobenzidine for 15 min and counterstained with haematoxylin. Antigen retrieval was facilitated using steaming at 95°C for 20 min in Trizma® buffer (pH 10.0). Blocking endogenous peroxidase performed with 0.3% H<sub>2</sub>O<sub>2</sub> and MeOH (20 min at 23°C). To decrease non-specific staining, tissue was pre-incubated in normal goat serum for 30 min at 23°C.



Immunocytochemistry/ Immunofluorescence - Anti-Prolactin Receptor/PRL-R antibody [U5] (ab2772)

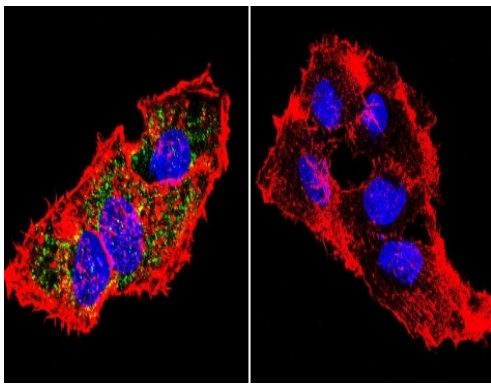
Immunocytochemistry/Immunofluorescence analysis of Prolactin Receptor/PRL-R shows staining in A2058 cells. Prolactin Receptor/PRL-R (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with ab2772 (1:20) over night at 4°C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. Images were taken at 60X magnification.



Flow Cytometry - Anti-Prolactin Receptor/PRL-R antibody [U5] (ab2772)

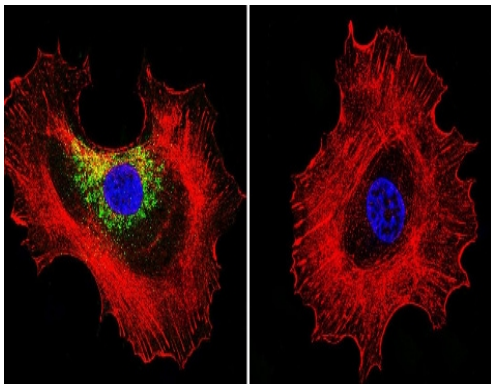
Overlay histogram showing MCF-7 cells stained with ab2772 (red line). The cells were fixed with 80% methanol (5 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab2772, 2µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) ([ab96879](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [CIGG1] ([ab91353](#), 2µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed.

Please note that Abcam do not have any data for use of this antibody on non-fixed cells. We welcome any customer feedback.



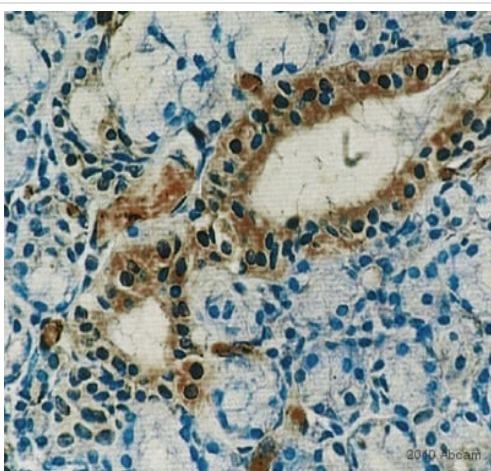
Immunocytochemistry/ Immunofluorescence - Anti-Prolactin Receptor/PRL-R antibody [U5] (ab2772)

Immunocytochemistry/Immunofluorescence analysis of Prolactin Receptor/PRL-R shows staining in HepG2 cells. Prolactin Receptor/PRL-R (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with ab2772 (1:20) over night at 4°C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. Images were taken at 60X magnification.



Immunocytochemistry/ Immunofluorescence - Anti-Prolactin Receptor/PRL-R antibody [U5] (ab2772)

Immunocytochemistry/Immunofluorescence analysis of Prolactin Receptor/PRL-R shows staining in MCF-7 cells. Prolactin Receptor/PRL-R (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with ab2772 (1:20) over night at 4°C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. Images were taken at 60X magnification.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Prolactin Receptor/PRL-R antibody [U5] (ab2772)

This image is courtesy of an anonymous Abreview

ab2772 staining the Prolactin Receptor/PRL-R in Human salivary gland tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and blocked with 10% serum for 1 hour at 20°C; antigen retrieval was not performed. Samples were incubated with primary antibody (1/100) for 12 hours at 4°C. A Biotin-conjugated Rabbit anti-mouse polyclonal (1/200) was used as the secondary antibody.

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