# Product datasheet

## Anti-Lactoferrin antibody [2B8] ab10110

**Overview**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-Lactoferrin antibody [2B8]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Mouse monoclonal [2B8] to Lactoferrin</td>
</tr>
<tr>
<td>Host species</td>
<td>Mouse</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: ELISA, WB, Sandwich ELISA, IHC-Fr, ICC/IF, IHC-P</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Rat, Human</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Full length native protein (purified) (Human).</td>
</tr>
<tr>
<td>General notes</td>
<td>Abcam is committed to meeting high quality standards of ethical manufacturing and has decided to discontinue this product by June 2020 as it has been generated by the ascites method. We are sorry for any inconvenience this may cause. We suggest ab109216 as a possible replacement. Can be used in the study of immunoregulation and for characterising leukaemias.</td>
</tr>
</tbody>
</table>

## Properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage instructions</td>
<td>Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.</td>
</tr>
</tbody>
</table>
| Storage buffer  | pH: 7.40  
Preservative: 0.09% Sodium azide  
Constituent: PBS |
| Purity          | Ascites |
| Purification notes | Purified from ascites. |
| Primary antibody notes | Can be used in the study of immunoregulation and for characterising leukaemias. |
| Clonality       | Monoclonal |
| Clone number    | 2B8 |
| Myeloma         | Sp2/0 |
| Isotype         | IgG1 |
| Light chain type | kappa |
Transferrins are iron binding transport proteins which can bind two Fe(3+) ions in association with the binding of an anion, usually bicarbonate. Lactotransferrin has antimicrobial activity which depends on the extracellular cation concentration. Lactoferroxins A, B and C have opioid antagonist activity. Lactoferroxin A shows preference for mu-receptors, while lactoferroxin B and C have somewhat higher degrees of preference for kappa-receptors than for mu-receptors. The lactotransferrin transferrin-like domain 1 functions as a serine protease of the peptidase S60 family that cuts arginine rich regions. This function contributes to the antimicrobial activity.

Sequence similarities
Belongs to the transferrin family.
Contains 2 transferrin-like domains.

Cellular localization
Secreted.

Applications
Our Abpromise guarantee covers the use of ab10110 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>WB</td>
<td>★★★☆☆☆☆☆☆</td>
<td>Use at an assay dependent concentration. Detects a band of approximately 77 kDa.</td>
</tr>
<tr>
<td>Sandwich</td>
<td></td>
<td>Use a concentration of 1 µg/ml. Can be paired for Sandwich ELISA with Rabbit polyclonal to Lactoferrin (Biotin) (ab25811). For sandwich ELISA, use this antibody as capture at 1µg/ml with ab25811.</td>
</tr>
<tr>
<td>ELISA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IHC-Fr</td>
<td>★★★☆☆☆☆☆☆</td>
<td>1/500.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use a concentration of 1 µg/ml.</td>
</tr>
<tr>
<td>IHC-P</td>
<td>★★★☆☆☆☆☆☆</td>
<td>Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.</td>
</tr>
</tbody>
</table>

Target

Function
Transferrins are iron binding transport proteins which can bind two Fe(3+) ions in association with the binding of an anion, usually bicarbonate. Lactotransferrin has antimicrobial activity which depends on the extracellular cation concentration. Lactoferroxins A, B and C have opioid antagonist activity. Lactoferroxin A shows preference for mu-receptors, while lactoferroxin B and C have somewhat higher degrees of preference for kappa-receptors than for mu-receptors. The lactotransferrin transferrin-like domain 1 functions as a serine protease of the peptidase S60 family that cuts arginine rich regions. This function contributes to the antimicrobial activity.

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Images
Sandwich ELISA - Anti-Lactoferrin antibody [2B8] (ab10110)

Standard curve for Lactoferrin (Analyte: ab78526); dilution range 1pg/ml to 1µg/ml using Capture Antibody Mouse monoclonal [2B8] to Lactoferrin (ab10110) at 1µg/ml and Detector Antibody Rabbit polyclonal to Lactoferrin (Biotin) (ab25811) at 0.5µg/ml.

Immunocytochemistry/ Immunofluorescence - Anti-Lactoferrin antibody [2B8] (ab10110)

ICC/IF image of ab10110 stained HepG2 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab10110, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lactoferrin antibody [2B8] (ab10110)

Ab10110 staining human normal trachea. Staining is localised to the cytoplasm. Left panel: with primary antibody at 1 ug/ml. Right panel: isotype control.

Sections were stained using an automated system DAKO Autostainer Plus, at room temperature. Sections were rehydrated and antigen retrieved with the Dako 3-in-1 AR buffer citrate pH 6.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 minutes. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS), then incubated with primary antibody for 20 minutes, and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric detection was completed with diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and amplification may be required.
IHC-P image of Lactoferrin staining on rat lung tissue sections using ab10110 (1:100). The sections were subjected to heat mediated antigen retrieval using citric acid. Non-specific protein interaction was blocked using 1% BSA at 21°C for 10 mins. The sections were then incubated with ab10110 for 16 hrs at 21°C. The secondary antibody used was Goat Polyclonal to Mouse IgG conjugated to Biotin (1:200).

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

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