

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                                           |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human GILT/IFI30 in direct ELISAs and Western blots.                                                    |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                                            |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                                       |
| <b>Immunogen</b>                                                                                                                                                                                        | Human embryonic kidney cell line HEK293-derived recombinant human GILT/IFI30 Ser27-Lys250<br>Accession # P13284 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm                                 |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                                    |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                                                 |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

IFI30 (Gamma-interferon-inducible protein IP-30; also gamma-interferon [IFN-γ] inducible lysosomal thiol reductase/GILT and Legumaturain) is a 25-30 kDa member of the GILT family of proteins. It is constitutively expressed in B cells and dendritic cells, and induced by IFN-γ in non-APCs. IFI30 is both intracellular and secreted as an inactive glycosylated proenzyme. The glycosylation pattern contains a terminal phosphorylated mannose, which is recognized by cell surface mannose-6-phosphate receptors and internalized into lysosomes. In lysosomes, IFI30 is processed into an active, mature form, and via a thiol reductase domain, breaks disulfide bonds in molecules destined for lysosomal degradation. This is a critical first step in the processing and subsequent presentation of peptides that will initiate an antigenic response. The human IFI30 proenzyme is 224 amino acids (aa) in length. In this form, it is 33-35 kDa in size. Following proteolytic processing at both the N- and C-terminus, a 175 aa, 25-30 kDa active mature form is generated (aa 58-232). The mature region possesses a thiol reductase domain (aa 62-151) plus one utilized Thr phosphorylation site. Both the pro- and mature forms exhibit enzymatic activity. IFI30 is known to exist as a 50-60 kDa disulfide-linked homodimer. There are four potential isoform variants. One contains a 26 aa substitution for aa 213-250, a second shows a deletion of aa 131-161, a third shows a deletion of aa 106-123, while a fourth shows a deletion of aa 64-212. Over aa 27-250, human IFI30 shares 62% aa sequence identity with mouse IFI30.

## PRODUCT SPECIFIC NOTICES

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