

**DESCRIPTION**

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human GILT/IFI30 in direct ELISAs and Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 844623
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	HEK293 human embryonic kidney cell line transfected with human GILT/IFI30 Ser27-Lys250 Accession # P13284
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

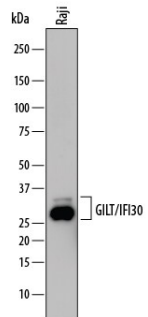
**APPLICATIONS**

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>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunocytochemistry</b>	5-25 µg/mL	See Below

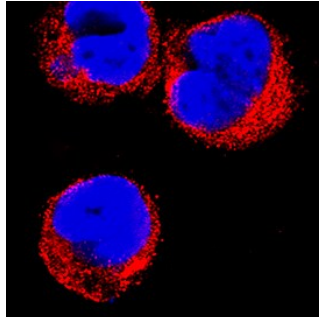
**DATA**

**Western Blot**



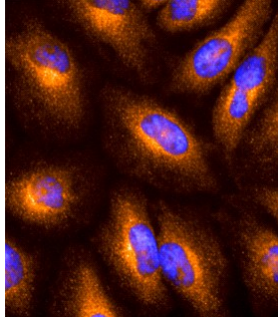
**Detection of Human GILT/IFI30 by Western Blot.** Western blot shows lysates of Raji human Burkitt's lymphoma cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human GILT/IFI30 Monoclonal Antibody (Catalog # MAB7715) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). Specific bands were detected for GILT/IFI30 at approximately 25-30 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Immunocytochemistry**



**GILT/IFI30 in THP-1 Human Cell Line.** GILT/IFI30 was detected in immersion fixed THP-1 human acute monocytic leukemia cell line using Mouse Anti-Human GILT/IFI30 Monoclonal Antibody (Catalog # MAB7715) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

**Immunocytochemistry**



**GILT/IFI30 in MCF-7 Human Cell Line.** GILT/IFI30 was detected in immersion fixed MCF-7 human breast cancer cell line using Mouse Anti-Human GILT/IFI30 Monoclonal Antibody (Catalog # MAB7715) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

IFI30 (Gamma-interferon-inducible protein IP-30; also gamma-interferon [IFN- $\gamma$ ] 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- $\gamma$  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.