

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IFN- $\lambda$ 4 in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 991620
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human IFN- $\lambda$ 4 Ala23-Leu179 Accession # K9M1U5
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 $\mu$ m filtered solution in PBS.

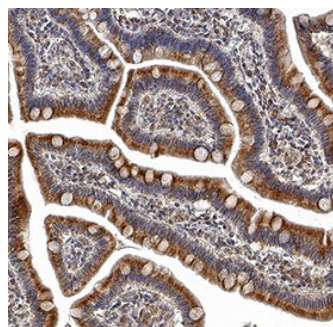
## APPLICATIONS

**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>Immunohistochemistry</b>	5-25 $\mu$ g/mL	See Below

## DATA

### Immunohistochemistry



**IFN- $\lambda$ 4 in Human Small Intestine.** IFN- $\lambda$ 4 was detected in immersion fixed paraffin-embedded sections of human small intestine using Mouse Anti-Human IFN- $\lambda$ 4 Monoclonal Antibody (Catalog # MAB9165) at 5  $\mu$ g/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in epithelial cells. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<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

Interferon-lambda 4 (IFN- $\lambda$ 4) is a secreted, approximately 17 kDa member of the type III interferon family of molecules (1). It is generated by a frameshift mutation based on a TT >  $\Delta$ G polymorphism (2). The TT allele inactivates expression of IFN- $\lambda$ 4 (2). The  $\Delta$ G allele is associated with reduced clearance of hepatitis C virus and reduced degranulation of CTL, NK, and NKT cells in the liver during hepatitis (2, 3), although IFN- $\lambda$ 4 itself shows *in vitro* activity against hepatitis C virus (4). IFN- $\lambda$ 4 is expressed in the liver of some chronic hepatitis C patients (5). It signals through a receptor complex containing IL-28 R/IFN- $\lambda$  R1 and IL-10 R $\beta$  to induce the expression of several interferon stimulated genes (ISG) (2, 4). Alternative splicing generates additional isoforms with large internal deletions or a substituted C-terminal region.

### References:

1. Wack, A. *et al.* (2015) Nat. Immunol. **16**:802.
2. Prokunina-Olsson, L. *et al.* (2013) Nat. Genet. **45**:164.
3. Jouvin-Marche, E. *et al.* (2014) J. Infect. Dis. **209**:1907.
4. Hamming, O.J. *et al.* (2013) EMBO J. **32**:3055.
5. Amanzada, A. *et al.* (2013) PLoS One **8**:e84026.