

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human/Mouse                                                                           |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human and mouse IL-19 in direct ELISAs and Western blots.                     |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Rat IgG <sub>2B</sub> Clone # 350114                                       |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                            |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant mouse IL-19<br>Leu25-Ala176<br>Accession # Q8CJ70 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 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.

**Western Blot** 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

Interleukin 19 (IL-19) is a member of the IL-10 family of cytokines (1). The IL-10 family is a class II α-helical collection of cytokines that contains two groups, a viral homolog and a cellular homolog group. Within the cellular homolog group, there are two additional groupings, one which uses IL-10 R2 as a signal transducing receptor (IL-10, IL-22 and IL-26), and one which uses IL-20 R2 as a signal transducing receptor (IL-19, IL-20 and IL-24) (2 - 4). Mouse IL-19 is synthesized as a 176 amino acid (aa) precursor that contains a 24 aa signal sequence and a 152 aa mature region (5). It is secreted as a glycosylated monomer, 35 - 45 kDa in size (2, 6, 7). IL-19 is unusual in that it contains seven amphipathic helices (2, 4, 8). Mature mouse IL-19 shares 69% aa sequence identity with the mature human IL-19, and 85% and 68% aa identity with rat and canine IL-19, respectively. Although mouse IL-19 is active on human cells, human IL-19 is not active on mouse cells (5). IL-19 expression is limited to activated keratinocytes and monocytes, with a possible contribution from B cells (6, 9, 10). IL-19 binds a receptor complex consisting of the IL-20 receptor alpha (also known as IL-20 R1) and the IL-20 receptor beta (IL-20 R2) (3, 4, 11, 12). This receptor complex is also shared by IL-20 and IL-24. Notably, IL-19 is reported to actually bind to IL-20 R2, which is generally considered to be only the signal transducing receptor subunit (7, 13). Functionally, it has been reported that IL-19 both will and will not induce IL-6 and TNF production by monocytes (5, 14). It does, however, seem to drive T-helper cell differentiation towards a Th2 response, inducing both IL-10 and production of itself (5, 14, 15).

## PRODUCT SPECIFIC NOTICES

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