Viral B18R Alexa Fluor® 594-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF8185T
100 µg

DESCRIPTION

Species Reactivity	Viral
Specificity	Detects viral B18R in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Human embryonic kidney cell line HEK293-derived recombinant viral B18R His20-Glu351 Accession # P25213
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	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

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

BACKGROUND

B18R (Soluble interferon alpha/beta receptor B18) is a 60-65 kDa protein encoded by the Vaccinia virus genome and by the genomes of other orthopoxviruses. Its function represents one of several mechanisms used by these viruses to evade the host immune response (1, 2). It is known as B18R in the Western Reserve (WR) strain of Vaccinia but as B19R in the Copenhagen strain (3). There is a structurally-unrelated, larger Vaccinia protein that is also known as B18R (or B16R) that contains multiple ankyrin-like repeats (4). The soluble interferon receptor B18R, however, contains three immunoglobulin-like domains and shows homology to human, mouse, and bovine type I interferon receptors (5). The Wyeth strain of Vaccinia virus encodes a truncated protein that lacks the C-terminal Ig-like domain, and B18R is functionally absent in the Lister strain (6, 7). B18R functions as a decoy receptor for type I interferons (IFN alpha, beta, omega). It binds to type I interferons from multiple species and prevents IFN signaling through its receptors (6-8). B18R binds to the surface of virus infected and uninfected cells where it retains its capacity to bind and neutralize IFN (6, 8). It shields those cells from the antiviral effects of type I interferons, thereby enabling virus replication and pathogenicity (6-8). B18R also limits the effectiveness of IFN alpha produced following TLR activation (9), and it limits adaptive T cell responses (3). B18R is a common factor used for increasing the efficiency of RNA reprogramming in induced pluripotent stem cells (IPS cells) (10).

PRODUCT SPECIFIC NOTICES

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