

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat Oncomodulin in direct ELISAs and Western blots. In direct ELISAs, approximately 40% cross-reactivity with recombinant human Oncomodulin is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant rat Oncomodulin Met1-Ser109 Accession # P02631
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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

Oncomodulin (OM; also parvalbumin beta) is a 12 - 14 kDa member of the parvalbumin family of Ca⁺⁺-binding proteins. It is expressed in early embryonic cells, placenta, and in tumors. OM was originally thought to have expression restricted to neoplastic tissues, early embryonic cells and certain tumor cell lines. Recent research shows that oncomodulin is also expressed and secreted by macrophages where, in the retina, it binds to retinal ganglion cells (RGCs) and functions to promote axon regeneration in early embryonic cells, placenta, and in tumors. OM is both cytoplasmic, and secreted. Rat OM is 109 amino acids (aa) in length. It contains a vestigial Ca⁺⁺-binding site (aa 733) and two EF hand domains, the latter of which contains one high-affinity Ca⁺⁺-binding site (aa 78108). Relative to parvalbumin alpha, OM has a lower pI (<4.8), a higher affinity for Ca⁺⁺, and they share only 50% aa identity. Full length rat OM shares 95% and 89% aa identity with mouse and human OM, respectively.

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