

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human URB in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human URB Met129-Tyr950 Accession # Q76M96
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

URB (upregulated in BRS-3 deficient mice) is a 150 kDa, secreted glycoprotein that belongs to the sushi-repeat-containing protein superfamily (1, 2). Sushi repeats, otherwise known as short consensus repeats (SCRs), are 60 amino acid (aa) sequences usually involved in protein-protein interaction. They are characterized by the presence of four Cys, two Pro, one Gly and one Trp (3). Human URB is synthesized as a 950 aa precursor that contains a 21 aa signal sequence and a 929 aa mature region. The mature molecule contains three extended sushi/SCR domains of approximately 140 aa each. They bear resemblance to the fifth sushi-repeat in human SPRX (4). The three lie between aa 141-281, 615-760, and 771-913, respectively. Between the first and second SCR lie two amino acid-rich regions, a Thr-rich domain (aa 347-404), and a Lys-rich domain (aa 487-588). Three potential N-linked glycosylation sites exist in the last two SCR's, while six potential bipartite nuclear localization signals (NLS) occur between aa 420-780. There are two potential alternate splice forms for human URB. One is 594 aa in length, and shows a simple truncation at Ser594. This effectively removes the second and third SCRs and two bipartite NLS (5). The second is 553 aa in length and shows a simple truncation after Lys553. This eliminates four bipartite NLSs, the second and third SCRs, and part of the Lys-rich domain (6). Full-length human URB is 83%, 84% and 87% aa identical to rat, mouse and bovine URB, respectively. URB is found in chondrocytes and appears to be downregulated upon CFU-Fibroblast differentiation (1). Thus, it may play a role in skeletogenesis.

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