

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human USAG1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human USAG1 Phe24-Ser206 Accession # Q6X4U4
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

USAG1 (also Ectodin and WISE; Wnt modulator in surface ectoderm) is a secreted, monomeric 26-32 kDa member of the sclerostin family of proteins. It exhibits restricted expression, being found in renal distal tubule cells (including macula densa), ameloblasts of teeth (for enamel formation), and cells of the dermal papilla. USAG1 binds BMP-2,-4,-6, and -7 with high affinity. This sequesters BMPs, making them unavailable for BMP receptor binding. It also binds LRP6, which, while weakly activating the LRP6 pathway, simultaneously blocks Wnt binding with strong Wnt-mediated signaling. Mature human USAG1 is 183 amino acids (aa) in length. It contains one CTCK domain (aa 75-170) plus two N-linked glycosylation sites. Mature human USAG1 (aa 24-206) shares 97% aa identity with mature mouse USAG1.

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