

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MSX2 in ELISAs. In direct ELISAs, no cross-reactivity with recombinant human MSX1 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 786607
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human MSX2 Ala2-Thr132 Accession # P35548
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.

Immunocytochemistry 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

MSX2, also known as HOX-8, is an approximately 35 kDa homeobox transcription factor that is a downstream target of canonical Wnt signaling. MSX2 plays an important role in the development of mineralized tissues including bone, cartilage, and teeth. It is upregulated in atherosclerotic plaques and promotes the calcification of vascular smooth muscle cells during inflammation. MSX2 suppresses the adipocytic differentiation of multipotent mesenchymal cells. MSX2 acts in mammary gland development and the initiation of female fetal germ cell meiosis. It promotes tumorigenesis of breast and pancreatic carcinomas but inhibits the survival and invasiveness of melanoma cells. Human MSX2 contains one homeodomain (aa 143-201). Within aa 1-132, human MSX2 shares 87% aa sequence identity with mouse and rat MSX2.

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