

Immunotag™ Msx-1 Monoclonal Antibody

Antibody Specification	
Catalog No.	ITM0453
Product Description	Immunotag™ Msx-1 Monoclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	MSX1
Clonality	Monoclonal
Storage/Stability	-20°C/1 year
Application	WB,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human
Host Species	Mouse
Immunogen	Purified recombinant fragment of human Msx-1 expressed in E. Coli.
Specificity	Msx-1 Monoclonal Antibody detects endogenous levels of Msx-1 protein.
Purification	Affinity purification
Form	Ascitic fluid containing 0.03% sodium azide.
Gene Name	MSX1
Accession No.	P28360 P13297
Alternate Names	MSX1; HOX7; Homeobox protein MSX-1; Homeobox protein Hox-7; Msh homeobox 1-like protein

Antibody Specification

Description	msh homeobox 1(MSX1) Homo sapiens This gene encodes a member of the muscle segment homeobox gene family. The encoded protein functions as a transcriptional repressor during embryogenesis through interactions with components of the core transcription complex and other homeoproteins. It may also have roles in limb-pattern formation, craniofacial development, particularly odontogenesis, and tumor growth inhibition. Mutations in this gene, which was once known as homeobox 7, have been associated with nonsyndromic cleft lip with or without cleft palate 5, Witkop syndrome, Wolf-Hirschorn syndrome, and autosomal dominant hypodontia. [provided by RefSeq, Jul 2008],
Protein Expression	Ectomesenchyme,Lymphocyte,Neuroblastoma,Pancreatic carcinoma,
Subcellular Localization	nucleus,nucleoplasm,cytoplasm,
Protein Function	disease:A chromosomal aberration involving MSX1 is a cause of Wolf-Hirschhorn syndrome (WHS) [MIM:194190]. WHS is caused by sub-telomeric deletions in the short arm of chromosome 4. WHS is characterized by profound mental retardation, heart defects, and facial clefting.,disease:Defects in MSX1 are a cause of autosomal dominant hypodontia (HYD1) [MIM:106600]; also known as familial or selective tooth agenesis. Absence of less than 6 teeth is referred to as hypodontia. Agenesis of one or more teeth constitutes one of the most common developmental anomalies in man. Reported incidences vary from 1.6% to 9.6%, excluding third molar (Wisdom tooth) agenesis, which occurs in 20% of the population.,disease:Defects in MSX1 are the cause of non-syndromic orofacial cleft type 5 (OFC5) [MIM:608874]; also called non-syndromic cleft lip with or without cleft palate 5. Non-syndromic orofacial cleft is a common birth defect consisting of cleft lips with or without cleft palate. Cleft lips are associated with cleft palate in two-third of cases. A cleft lip can occur on one or both sides and range in severity from a simple notch in the upper lip to a complete opening in the lip extending into the floor of the nostril and involving the upper gum.,disease:Defects in MSX1 are the cause of Witkop syndrome (WITS) [MIM:189500]. WITS is a form of ectodermal dysplasia also called tooth-and-nail syndrome or dysplasia of nails with hypodontia. Ectodermal dysplasias (EDs) constitute a heterogeneous group of developmental disorders affecting tissues of ectodermal origin. EDs are characterized by abnormal development of two or more ectodermal structures such as hair, teeth, nails and sweat glands, with or without any additional clinical sign. Each combination of clinical features represents a different type of ectodermal dysplasia. Witkop syndrome is characterized by abnormalities largely limited largely to teeth (some of which are missing) and nails (which are poorly formed early in life, especially toenails). This condition is distinguished from anhidrotic ectodermal dysplasia by autosomal dominant inheritance and little involvement of hair and sweat glands. The teeth are not as severely affected.,function:Acts as a transcriptional repressor. May play a role in limb-pattern formation. Acts in craniofacial development and specifically in odontogenesis. Expression in the developing nail bed mesenchyme is important for nail plate thickness and integrity.,PTM:Sumoylated by PIAS1, desumoylated by SENP1.,similarity:Belongs to the Msh homeobox family.,similarity:Contains 1 homeobox DNA-binding domain.,tissue specificity:Expressed in the developing nail bed mesenchyme.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.