

Product name:	TYR Rabbit Polyclonal Antibody
Cat number:	ABN19467
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human Tyrosinase. AA range:471-520
Reactivity:	Human,Monkey
Applications:	WB 1:500-1:2000,ELISA 1:5000-1:20000
Molecular Weight:	80kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

tyrosinase(TYR) Homo sapiens The enzyme encoded by this gene catalyzes the first 2 steps, and at least 1 subsequent step, in the conversion of tyrosine to melanin. The enzyme has both tyrosine hydroxylase and dopa oxidase catalytic activities, and requires copper for function. Mutations in this gene result in oculocutaneous albinism, and nonpathologic polymorphisms result in skin pigmentation variation. The human genome contains a pseudogene similar to the 3' half of this gene. [provided by RefSeq, Oct 2008],catalytic activity:L-tyrosine + L-dopa + O(2) = L-dopa + dopaquinone + H(2)O.,cofactor: Binds 2 copper ions per subunit.,disease: Defects in TYR are the cause of oculocutaneous albinism type I temperature-sensitive (OCA-ITS) [MIM:606952]. OCA-ITS patients have white axillary and scalp hair and pigmented arm and leg hair.,disease: Defects in TYR are the cause of oculocutaneous albinism type IA (OCA-IA) [MIM:203100]. OCA-I, also known as tyrosinase negative oculocutaneous albinism, is an autosomal recessive disorder characterized by absence of pigment in hair, skin and eyes. OCA-I is divided into 2 types: type IA, characterized by complete lack of tyrosinase activity due to production of an inactive enzyme, and type IB characterized by reduced activity of tyrosinase. OCA-IA patients presents with the life-long absence of melanin pigment after birth and manifest increased sensitivity to ultraviolet radiation and to predisposition to skin cancer.,disease: Defects in TYR are the cause of oculocutaneous albinism type IB (OCA-IB) [MIM:606952]; also known as albinism yellow mutant type. OCA-IB patients have white hair at birth that rapidly turns yellow or blond. They manifest the development of minimal-to-moderate amounts of cutaneous and ocular pigment.,function: This is a copper-containing oxidase that functions in the formation of pigments such as melanins and other polyphenolic compounds. Catalyzes the rate-limiting conversions of tyrosine to DOPA, DOPA to DOPA-quinone and possibly 5,6-dihydroxyindole to indole-5,6 quinone.,induction: Increased expression after UV-B radiation.,online information: Retina International's Scientific Newsletter,online information: Snowy stardom - Issue 49 of August 2004,online information: TYR mutations,online information: Tyrosinase entry,polymorphism: Compound heterozygosity for the R402Q polymorphism and a mutant allele of TYR is a common cause of autosomal recessive ocular albinism. The R402Q polymorphism is also found in Waardenburg syndrome type II with ocular albinism (WS2-OA) in association with a deletion in the MITF gene.,polymorphism: Genetic variations in TYR are associated with skin/hair/eye pigmentation type 3 (SHEP3) [MIM:601800]. Hair, eye and skin pigmentation are among the most visible examples of human phenotypic variation, with a broad normal range that is subject to substantial geographic stratification. In the case of skin, individuals tend to have lighter pigmentation with increasing distance from the equator. By contrast, the majority of variation in human eye and hair color is found among individuals of European ancestry, with most other human populations fixed for brown eyes and black hair.,similarity: Belongs to the tyrosinase family.,