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Rabbit Polyclonal UBR1 Antibody

Catalog Number: UBR1-101AP

Lot Number:

General Product Information

Product	Anti-UBR1 Antibody
Description	Rabbit Polyclonal E3 Ubiquitin Protein Ligase UBR1 Antibody
Verified Applications	ELISA, DB, WB, IMM
Species Cross Reactivity	Human, Mouse, Rat
Immunogen	Synthetic peptide corresponding to amino acid sequences unique to UBR1 protein.
Alternative Nomenclature	E3 ubiquitin-protein ligase UBR1 antibody UBR1_HUMAN antibody Ubiquitin-protein ligase E3-alpha-I antibody N-recognin-1 antibody

Physical Properties

Quantity	100 µg
Volume	200 µl
Form	Affinity Purified
Immunoglobulin & Concentration	0.68-0.70 mg/ml IgG in antibody stabilization buffer
Storage	Store at -20^0 C for long term storage.

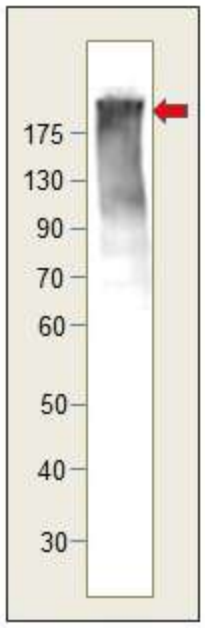
Application Protocol

ELISA	1:4,000
DOT Blot	1:4,000
Western Blot	1:500
Immunoprecipitation	1:150

Related Products

FITC-Conjugated	UBR1-FITC
Antigenic Blocking Peptide	P-UBR1
Western Blot Positive Control	PC-UBR1

Application Verification:



Western Blot of UBR1 Antibody (UBR1-101AP) with UBR1 Positive Control (PC-UBR1). Apparent Molecular weight is 210 kDa.

Dilutions are for reference only. Applications not listed above are not necessarily precluded from working with this antibody. Investigators intending to use an application that has not been verified can request a complimentary sample.

Overview:

UBR1 is an E3 ubiquitin-protein ligase which is a component of the N-end rule pathway, the proteolytic pathway of the ubiquitin system. The recognition component of this pathway, encoded by this gene, binds to a destabilizing N-terminal residue of a substrate protein and participates in the formation of a substrate-linked multi ubiquitin chain. It recognizes and binds to proteins bearing specific N-terminal residues that are destabilizing according to the N-end rule, leading to their ubiquitination and subsequent degradation (1). UBR1 is involved in pancreatic homeostasis leading to the eventual degradation of the substrate protein. It binds leucine and is a negative regulator of the leucine-mTOR signaling pathway, thereby controlling cell growth (2). The protein described in this record has a RING-type zinc finger and a UBR-type zinc finger. Mutations in this gene have been associated with Johansson-Blizzard syndrome (3). UBR1 is ubiquitously expressed in adult mouse, with the highest expression detected in skeletal muscle and heart. In mouse embryo, UBR1 is primarily expressed in the branchial arches and in the tail and limb buds. UBR1 is located on mouse chromosome 2 and on human chromosome 15 in the syntenic region.

The UBR1-selective antibodies were generated against unique N-terminal peptides characteristics of the particular UBR1 family. FabGennix has generated highly specific rabbit UBR1 polyclonal antibodies utilizing mostly C-terminal sequences. These antibodies have been fully characterized for cross reactivity with other cellular proteins. FabGennix has produced antibodies to multiple epitopes on the same protein that will facilitate studies utilizing interspecies cross reactivity. Western blot positive control samples in “ready-to-use” SDS-PAGE sample buffer and antigenic blocking peptide for UBR1 are available. The UBR1 positive control appears as a diffuse band of 210 kDa and co-migrates with rat adipocyte membrane UBR1 protein on a 10% SDS Page. All antibodies can be conjugated to fluorophores and other secondary enzymes as an additional service. FabGennix provides custom antibody production services for researchers that are looking for high affinity monoclonal and polyclonal antibodies in various host animal species. For a complete listing of all FabGennix antibodies and services please visit www.fabgennix.com.

References:

1. Matta-Camacho E1, Kozlov G, Li FF, Gehring K. Structural basis of substrate recognition and specificity in the N-end rule pathway. Nat Struct Mol Biol. 2010 Oct;17(10): Epub 2010 Sep 12.
2. Kume K1, Iizumi Y, Shimada M, Ito Y, Kishi T, Yamaguchi Y, Handa H. Role of N-end rule ubiquitin ligases UBR1 and UBR2 in regulating the leucine-mTOR signaling pathway. Genes Cells. 2010 Apr 1;15(4): Epub 2010 Mar 16.
3. Zenker M1, Mayerle J, et al. Deficiency of UBR1, a ubiquitin ligase of the N-end rule pathway, causes pancreatic dysfunction, malformations and mental retardation (Johanson-Blizzard syndrome). Nat Genet. 2005 Dec;37(12) Epub 2005 Nov 20.

* For users who may require large amounts of the products listed above, please inquire about bulk material discounts.

This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis. 01162015---0020SF1001Z-rev10.01