

ARG81985 Human Notch 1 ELISA Kit

Package: 96 wells
Store at: 4°C

Component

Cat. No.	Component Name	Package	Temp
ARG81985-001	Antibody-coated microplate	8 X 12 strips	4°C. Unused strips should be sealed tightly in the air-tight pouch.
ARG81985-002	Standard	2 X 10 ng/vial	4°C
ARG81985-003	Standard/Sample diluent	30 ml (Ready to use)	4°C
ARG81985-004	Antibody conjugate concentrate (100X)	1 vial (100 µl)	4°C
ARG81985-005	Antibody diluent buffer	12 ml (Ready to use)	4°C
ARG81985-006	HRP-Streptavidin concentrate (100X)	1 vial (100 µl)	4°C
ARG81985-007	HRP-Streptavidin diluent buffer	12 ml (Ready to use)	4°C
ARG81985-008	25X Wash buffer	20 ml	4°C
ARG81985-009	TMB substrate	10 ml (Ready to use)	4°C (Protect from light)
ARG81985-010	STOP solution	10 ml (Ready to use)	4°C
ARG81985-011	Plate sealer	4 strips	Room temperature

Summary

Product Description	ARG81985 Human Notch 1 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human Notch 1 in serum, plasma (heparin, EDTA) and cell culture supernatants.
Tested Reactivity	Hu
Tested Application	ELISA
Specificity	There is no detectable cross-reactivity with other relevant proteins.
Target Name	Notch 1
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	31.25 pg/ml
Sample Type	Serum, plasma (heparin, EDTA) and cell culture supernatants.
Standard Range	62.5 - 4000 pg/ml
Sample Volume	100 µl

Precision	Intra-Assay CV: 6.4%; Inter-Assay CV: 7.3%
Alternate Names	AOVD1; Translocation-associated notch protein TAN-1; NEXT; hN1; AOS5; NICD; Notch 1; Neurogenic locus notch homolog protein 1; TAN1

Application Instructions

Assay Time	~ 5 hours
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Properties

Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	NOTCH1
Gene Full Name	notch 1
Background	<p>This gene encodes a member of the Notch family. Members of this Type 1 transmembrane protein family share structural characteristics including an extracellular domain consisting of multiple epidermal growth factor-like (EGF) repeats, and an intracellular domain consisting of multiple, different domain types. Notch family members play a role in a variety of developmental processes by controlling cell fate decisions. The Notch signaling network is an evolutionarily conserved intercellular signaling pathway which regulates interactions between physically adjacent cells. In <i>Drosophila</i>, notch interaction with its cell-bound ligands (delta, serrate) establishes an intercellular signaling pathway that plays a key role in development. Homologues of the notch-ligands have also been identified in human, but precise interactions between these ligands and the human notch homologues remain to be determined. This protein is cleaved in the trans-Golgi network, and presented on the cell surface as a heterodimer. This protein functions as a receptor for membrane bound ligands, and may play multiple roles during development. [provided by RefSeq, Jul 2008]</p>
Function	<p>Functions as a receptor for membrane-bound ligands Jagged1, Jagged2 and Delta1 to regulate cell-fate determination. Upon ligand activation through the released notch intracellular domain (NICD) it forms a transcriptional activator complex with RBPJ/RBPSUH and activates genes of the enhancer of split locus. Affects the implementation of differentiation, proliferation and apoptotic programs. Involved in angiogenesis; negatively regulates endothelial cell proliferation and migration and angiogenic sprouting. Involved in the maturation of both CD4+ and CD8+ cells in the thymus. Important for follicular differentiation and possibly cell fate selection within the follicle. During cerebellar development, functions as a receptor for neuronal DNER and is involved in the differentiation of Bergmann glia. Represses neuronal and myogenic differentiation. May play an essential role in postimplantation development, probably in some aspect of cell specification and/or differentiation. May be involved in mesoderm development, somite formation and neurogenesis. May enhance HIF1A function by sequestering HIF1AN away from HIF1A. Required for the THBS4 function in regulating protective astrogenesis from the subventricular zone (SVZ) niche after injury. Involved in determination of left/right symmetry by modulating the balance between motile and immotile (sensory) cilia at the left-right organiser (LRO). [UniProt]</p>
Highlight	<p>Related products: Notch 1 antibodies; Notch 1 ELISA Kits; New ELISA data calculation tool: Simplify the ELISA analysis by GainData</p>
PTM	<p>Synthesized in the endoplasmic reticulum as an inactive form which is proteolytically cleaved by a furin-like convertase in the trans-Golgi network before it reaches the plasma membrane to yield an active, ligand-accessible form. Cleavage results in a C-terminal fragment N(TM) and a N-terminal fragment N(EC). Following ligand binding, it is cleaved by ADAM17 to yield a membrane-associated intermediate</p>

fragment called notch extracellular truncation (NEXT). Following endocytosis, this fragment is then cleaved by presenilin dependent gamma-secretase to release a notch-derived peptide containing the intracellular domain (NICD) from the membrane.

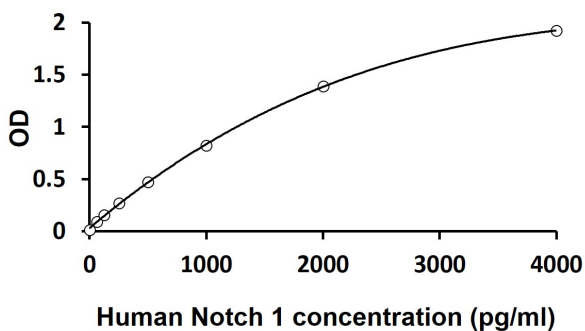
Phosphorylated.

O-glycosylated on the EGF-like domains (PubMed:24226769). Contains both O-linked fucose and O-linked glucose in the EGF-like domains 11, 12 and 13, which are interacting with the residues on DLL4 (By similarity). O-linked glycosylation by GALNT11 is involved in determination of left/right symmetry: glycosylation promotes activation of NOTCH1, possibly by promoting cleavage by ADAM17, modulating the balance between motile and immotile (sensory) cilia at the left-right organiser (LRO) (PubMed:24226769).

Ubiquitinated; undergoes 'Lys-29'-linked polyubiquitination catalyzed by ITCH. Monoubiquitination at Lys-1759 is required for activation by gamma-secretase cleavage, it promotes interaction with AAK1, which stabilizes it. Deubiquitination by EIF3F is necessary for nuclear import of activated Notch.

Hydroxylated at Asn-1955 by HIF1AN. Hydroxylated at Asn-2022 by HIF1AN (By similarity). Hydroxylation reduces affinity for HIF1AN and may thus indirectly modulate negative regulation of NICD (By similarity). [UniProt]

Images



ARG81985 Human Notch1 ELISA Kit standard curve image

ARG81985 Human Notch1 ELISA Kit results of a typical standard run with optical density reading at 450 nm.