abcam

Product datasheet

Human NDRG1 ELISA Kit ab270214

אלצעבע SimpleStep ELISA

画像数5

製品の概要

再現性

添加回収試験

製品名 Human NDRG1 ELISA Kit

検出方法 Colorimetric

サンプル	N	平均値	SD	CV%
Extract	8			6.9%

Inter-Assay(日差再現性)

特定サンプルでの回収試験

Intra-Assay(同時再現性)

サンプル	N	平均值	SD	CV%
Extract	3			9.4%

サンプルの種類 Cell Lysate

アッセイタイプ Sandwich (quantitative)

検出感度 75.2 pg/ml

検出範囲 390.63 pg/ml - 25000 pg/ml

サンプルの種類	平均 %	測定範囲
Cell Lysate	94	93% - 102%

全工程の試験時間 1h 30m

ステップ One step assay

種交差性 交差種: Human

製品の概要 Human NDRG1 ELISA Kit (ab270214) is a single-wash 90 min sandwich ELISA designed for the

quantitative measurement of NDRG1 protein in cell lysate. It uses our proprietary SimpleStep

ELISA® technology. Quantitate Human NDRG1 with 75.2 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This

approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (<u>ab203359</u>) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

特記事項

NDRG1 (N-myc downstream-regulated gene 1) also called DRG-1 and Cap43 is a 43 kDa member of the NDRG family of proteins. It is ubiquitously expressed, found in fibroblasts, endothelial cells, respiratory epithelium and prostate epithelium. NDRG1 is highly expressed in non-proliferating, differentiating tissue. Human NDRG1 is 394 amino acids in length and contains an NDGR domain (aa 286 - 316) plus three tandem 10 aa hydrophilic repeats (aa 339 - 368). There are three potential isoform variants; Two involve alternate start sites at Met82 and Met286, while a third shows a four aa substitution for aa 1 - 34. NDRG1 is a metastasis suppressor that works by blocking the angiogenesis signaling pathway and is a nickel- and calcium-inducible gene that plays important roles in the primary growth of malignant tumors, as well as in invasion and metastasis. NDRG1 shares 93.6%, 93.4%, 92.6%, and 99% sequence homology with mouse, rat, bovine, and monkey, respectively.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances. It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

試験プラットフォーム

Pre-coated microplate (12 x 8 well strips)

製品の特性

保存方法

Store at +4°C. Please refer to protocols.

内容	1 x 96 tests
10X Human NDRG1 Capture Antibody	1 x 600µl
10X Human NDRG1 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 4BI	1 x 6ml
Human NDRG1 Lyophilized Recombinant Protein	2 vials

内容	1 x 96 tests
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

機能

May have a growth inhibitory role.

組織特異性

Ubiquitous; expressed most prominently in placental membranes and prostate, kidney, small intestine, and ovary tissues. Reduced expression in adenocarcinomas compared to normal tissues. In colon, prostate and placental membranes, the cells that border the lumen show the highest expression.

関連疾患

Defects in NDRG1 are the cause of Charcot-Marie-Tooth disease type 4D (CMT4D) [MIM:601455]; also known as hereditary motor and sensory neuropathy Lom type (HMSNL). CMT4D is a recessive form of Charcot-Marie-Tooth disease, the most common inherited disorder of the peripheral nervous system. Charcot-Marie-Tooth disease is classified in two main groups on the basis of electrophysiologic properties and histopathology: primary peripheral demyelinating neuropathy and primary peripheral axonal neuropathy. Demyelinating CMT neuropathies are characterized by severely reduced nerve conduction velocities (less than 38 m/sec), segmental demyelination and remyelination with onion bulb formations on nerve biopsy, slowly progressive distal muscle atrophy and weakness, absent deep tendon reflexes, and hollow feet. By convention, autosomal recessive forms of demyelinating Charcot-Marie-Tooth disease are designated CMT4.

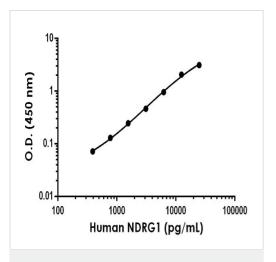
配列類似性

Belongs to the NDRG family.

細胞内局在

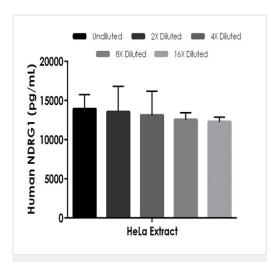
Cytoplasm. Nucleus. Cell membrane. Whereas in prostate epithelium and placental chorion it is located in both the cytoplasm and the nucleus, nuclear staining is not observed in colon epithelium cells. Instead its localization changes from the cytoplasm to the plasma membrane during differentiation of colon carcinoma cell lines in vitro.

画像



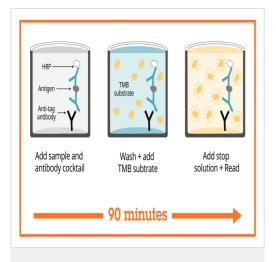
Example of human NDRG1 standard curve in 1X Cell Extraction Buffer PTR.

The NDRG1 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



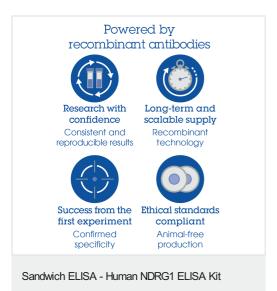
Interpolated concentrations of native NDRG1 in human HeLa cell extract based on a 1,000 $\mu g/mL$ extract load.

The concentrations of NDRG1 were measured in duplicate and interpolated from the NDRG1 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean NDRG1 concentration was determined to be 13093.22 pg/mL in HeLa cell extract.



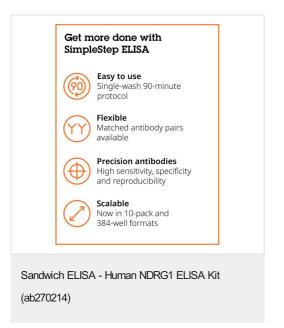
Sandwich ELISA - Human NDRG1 ELISA Kit (ab270214)

SimpleStep ELISA technology allows the formation of the antibodyantigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



(ab270214)

To learn more about the advantages of recombinant antibodies see **here**.



To learn more about the advantages of SimpleStep $\mathsf{ELISA}^{@}$ kits see $\underline{\mathsf{here}}$.

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