

SDCCAG1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP18740a

Specification

SDCCAG1 Antibody (N-term) - Product Information

Application WB,E **Primary Accession** 060524 Reactivity Human Host **Rabbit** Clonality **Polyclonal** Isotype Rabbit IgG Calculated MW 122954 **Antigen Region** 236-264

SDCCAG1 Antibody (N-term) - Additional Information

Gene ID 9147

Other Names

Nuclear export mediator factor NEMF, Antigen NY-CO-1, Serologically defined colon cancer antigen 1, NEMF, SDCCAG1

Target/Specificity

This SDCCAG1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 236-264 amino acids from the N-terminal region of human SDCCAG1.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SDCCAG1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

SDCCAG1 Antibody (N-term) - Protein Information

Name NEMF {ECO:0000303|PubMed:33048237, ECO:0000312|HGNC:HGNC:10663}

Function Key component of the ribosome quality control complex (RQC), a ribosome-associated



complex that mediates the extraction of incompletely synthesized nascent chains from stalled ribosomes as well as their ubiquitin-mediated proteasomal degradation (PubMed:25578875, PubMed:32726578, PubMed:33406423, PubMed:33909987). Thereby, frees 60S subunit ribosomes from the stalled translation complex and prevents the accumulation of nascent polypeptide chains that are potentially toxic for the cell (PubMed: <u>25578875</u>, PubMed: <u>33406423</u>, PubMed: <u>33909987</u>). Within the RQC complex, NEMF specifically binds stalled 60S ribosomal subunits by recognizing an exposed, nascent chain-conjugated tRNA moiety and promotes the recruitment of LTN1 to stalled 60S subunits (PubMed: 25578875). Following binding to stalled 60S ribosomal subunits, NEMF mediates CAT tailing by recruiting alanine-charged tRNA to the A- site and directing the elongation of stalled nascent chains independently of mRNA or 40S subunits, leading to non-templated Cterminal alanine extensions (CAT tails) (PubMed: 33406423, PubMed: 33909987). Mainly recruits alanine-charged tRNAs, but can also other amino acid-charged tRNAs (PubMed: 33406423, PubMed: 33909987). CAT tailing is required to promote ubiquitination of stalled nascent chains by different E3 ubiquitin-protein ligases (PubMed: 33909987). In the canonical RQC pathway (RQC-L), CAT tailing facilitates LTN1-dependent ubiquitination by exposing lysine residues that would otherwise remain buried in the ribosomal exit tunnel (By similarity). In the alternative RQC pathway (RQC-C) CAT tailing creates an C-degron mainly composed of alanine that is recognized by the CRL2(KLHDC10) and RCHY1/PIRH2 E3 ligases, leading to ubiquitination and degradation of stalled nascent chains (PubMed: 33909987). NEMF may also indirectly play a role in nuclear export (PubMed: 16103875).

Cellular Location Cytoplasm, cytosol. Nucleus

Tissue Location

Expressed in brain, heart, liver, lung, spleen, and skeletal muscle. Also expressed at lower levels in stomach and testis

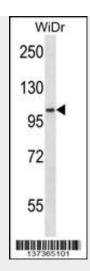
SDCCAG1 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SDCCAG1 Antibody (N-term) - Images





SDCCAG1 Antibody (N-term)(Cat. #AP18740a) western blot analysis in WiDr cell line lysates (35ug/lane). This demonstrates the SDCCAG1 antibody detected the SDCCAG1 protein (arrow).

SDCCAG1 Antibody (N-term) - Background

The function of this protein remains unknown.