

Product datasheet for RC214598

NTH1 (NTHL1) (NM_002528) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | NTH1 (NTHL1) (NM_002528) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | NTH1 |
| Synonyms: | FAP3; hNTH1; NTH1; OCTS3 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC214598 representing NM_002528 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGTAGTCCGCAGGAGTCCGGCATGACCGCCTTGAGCGCGAGGATGCTGACCCGGAGCCGGAGCCTGG
GACCCGGGGCTGGGCCGCGGGGTGTAGGGAGGAGCCCGGCCTCTCCGGAGAAGAGAGGCTGCAGCAGA
AGCGAGGAAAAGCCACAGCCCCGTGAAGCGTCCGCGAAAGCACAGAGACTGCGTGTGGCCTATGAGGGC
TCGGACAGTGAGAAAGGTGAGGGGGCTGAGCCCTCAAGGTGCCAGTCTGGGAGCCCGAGGACTGGCAGC
AACAGCTGGTCAACATCCGTGCCATGAGGAACAAAAGGATGCACCTGTGGACCATCTGGGGACTGAGCA
CTGCTATGACTCCAGTGCCCCCAAAGGTACGCAGGTACCAGGTGCTGCTGTCACTGATGCTCTCCAGC
CAAACCAAGACCAGGTGACGGCGGGCCATGCAGCGACTGCGGGCGGGGCCTGACGGTGGACAGCA
TCCTGCAGACAGATGATGCCACGCTGGGCAAGCTCATCTACCCCGTCGGTTTCTGGAGGAGCAAGGTGAA
ATACATCAAGCAGACCAGCGCCATCCTGCAGCAGCACTACGGTGGGGACATCCCAGCCTCTGTGGCCGAG
CTGGTGGCGCTGCCGGTGTGGGCCAAAGATGGCACACCTGGCTATGGCTGTGGCTGGGGCACTGTGT
CAGGCATTGCAGTGGACACGCATGTGCACAGAATCGCCAACAGGCTGAGGTGGACCAAGAAGGCAACCAA
GTCCCCAGAGGAGACCCGCGCCCTGGAGGAGTGGCTGCCTAGGGAGCTGTGGCACGAGATCAATGGA
CTCTTGGTGGCTTCGGCCAGCAGACTGTCTGCCTGTGCACCTCGCTGCCACGCTGCCTCAACCAAG
CCCTCTGCCCGGCCCGCCAGGGTCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >RC214598 representing NM_002528
Red=Cloning site Green=Tags(s)

MCSPQESGMTALSARMLTRSRSLGPGAGPRGCREEPGLRRREAAAARKSHSPVKRPRKAQRLRVAYEG
 SDSEKGEAEPLKVPVWEPQDWQQQLVNIRAMRNKDPVDHLGTEHCYDSSAPPKVRRYQVLLSLMLSS
 QTKDQVTAGAMQRLRARGLTVDLILQTDATLGKLIYPVGFWRSKVKYIKQTSAILQOHYGGDIPASVAE
 LVALPGVGPKMAHLAMAVAWGTVSGIAVDTHVHRIANRLRWTKKATKSPEETRAALEEWLPRELWHEING
 LLVGFQQQTCLPVHPRCHACLNQLCPAAQGL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8030_b02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_002528

ORF Size: 936 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_002528.6](#)

RefSeq Size: 1097 bp

RefSeq ORF: 915 bp

Locus ID: 4913

UniProt ID: [P78549](#)

Cytogenetics: 16p13.3

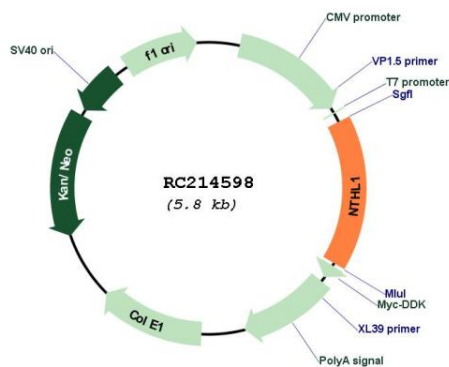
Protein Families: Druggable Genome, Stem cell - Pluripotency

Protein Pathways: Base excision repair

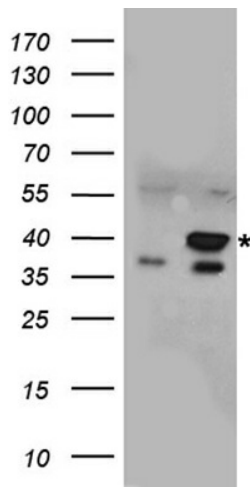
MW: 34.2 kDa

Gene Summary: The protein encoded by this gene is a DNA N-glycosylase of the endonuclease III family. Like a similar protein in *E. coli*, the encoded protein has DNA glycosylase activity on DNA substrates containing oxidized pyrimidine residues and has apurinic/aprymidinic lyase activity. [provided by RefSeq, Oct 2008]

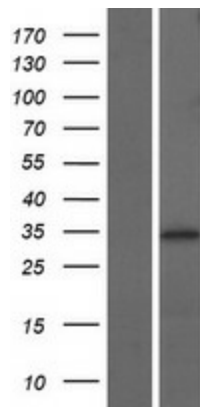
Product images:



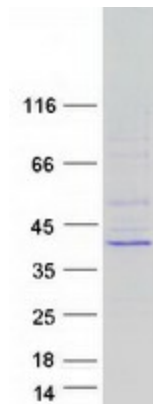
Circular map for RC214598



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NTHL1 (Cat# RC214598, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-NTHL1 antibody (Cat# [TA890138]). Positive lysates [LY419272] (100ug) and [LC419272] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419272]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214598 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NTHL1 protein (Cat# [TP314598]). The protein was produced from HEK293T cells transfected with NTHL1 cDNA clone (Cat# RC214598) using MegaTran 2.0 (Cat# [TT210002]).