

Product datasheet for **RC211244**

Sodium Iodide Symporter (SLC5A5) (NM_000453) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sodium Iodide Symporter (SLC5A5) (NM_000453) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sodium Iodide Symporter
Synonyms:	NIS; TDH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC211244 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGGCCGTGGAGACCGGGGAACGGCCACCTTCGGAGCCTGGGACTACGGGGTCTTTGCCCTCATGC
 TCCTGGTGTCCACTGGCATCGGGCTGTGGTTCGGGCTGGCTCGGGCGGGCAGCGCAGCGCTGAGGACTT
 CTTACCGGGGGCCGGCCCTGGCGGCCCTGCCGTGGGCTGTCGCTGTCTGCCAGCTTCATGTGGCC
 GTGCAGGTGCTGGGCGTCCGTCGGAGGCCTATCGCTATGGCCTCAAGTTCTCTGGATGTGCCTGGCC
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 TCTGGCCTCCTGGACCCGGCTCTCCTCCTGCTAACGACTCCAGCAGGGCCCCCAGCTCAGGAATGGACG
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 GGACATGATGGTGGTCGAGACCAGCAGGAGACAAACCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC211244 protein sequence
 Red=Cloning site Green=Tags(s)

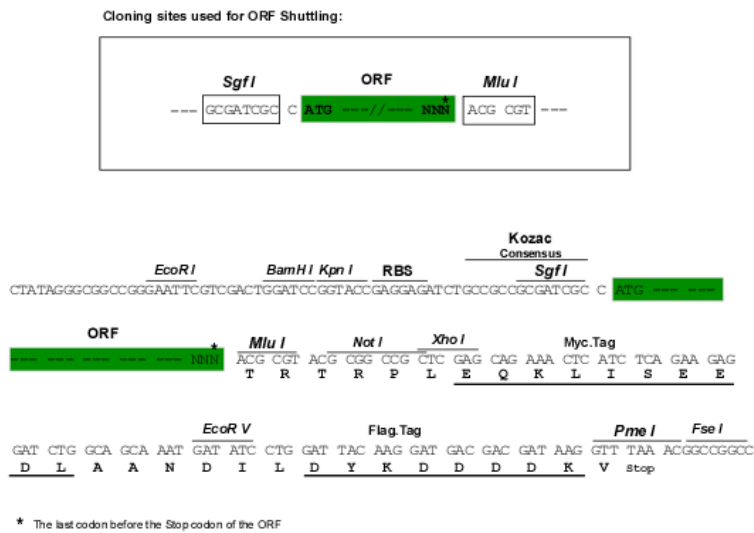
MEAVETGERPTFGAWDYGVFALMLLVSTGIGLWVGLARGGQRSAEDFFTGGRRRLAALPVGLSLSASFMSA
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 TMLYTGIVYAPALILNQVTGLDIWASLLSTGIICTFYAVGGMKAVVWTDVVFQVVVMLSGFWVVLARGV
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 TLSTASTINAMAAVTVEDLIKPRRLSLAPRKLVIISKGLSLIYGSACLVAALSSLLGGVQLQGSFTVM
 GVISGPLLGAFILGMFLPACNTPGVLAGL GAGLALSLWVALGATLYPPSEQTMRVLPSSAARCVALSUNA
 SGLLDPALLPANDSSRAPSSGMDASRPALADSFYAI SYL YYGALGTLTTVLCGALISCLTGPTKRSTLAP
 GLLWWDLARQTASVAPKEEVAILEDNLVKGPEELPTGNKKPPGFLPTNEDRLLFLLGQKELEGAGSWTPCV
 GHDGGRDQQETNL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6130_a12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000453

ORF Size: 1929 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_000453.3](#)

RefSeq Size: 3594 bp

RefSeq ORF: 1932 bp

Locus ID: 6528

UniProt ID: [Q92911](#)

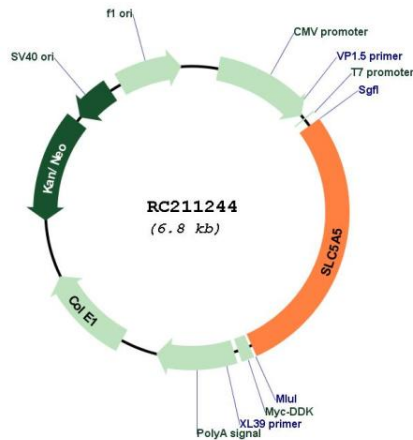
Cytogenetics: 19p13.11

Protein Families: Druggable Genome, Transmembrane

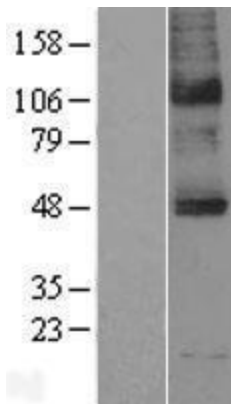
MW: 68.7 kDa

Gene Summary: This gene encodes a member of the sodium glucose cotransporter family. The encoded protein is responsible for the uptake of iodine in tissues such as the thyroid and lactating breast tissue. The iodine taken up by the thyroid is incorporated into the metabolic regulators triiodothyronine (T3) and tetraiodothyronine (T4). Mutations in this gene are associated with thyroid dyshormonogenesis 1.[provided by RefSeq, Sep 2009]

Product images:



Circular map for RC211244



Western blot validation of overexpression lysate (Cat# [LY400159]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211244 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).