

## Product datasheet for **MG218943**

### **Nth1 (NM\_008743) Mouse Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Nth1 (NM\_008743) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Nth1  
**Synonyms:** Nth1; Octs3  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG218943 representing NM\_008743  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAACTCAGGGTGCGGATGGTGACTCGCAGTCGGAGCCGCGCGACTAGGATCGCGTCGGAAGGGTGTA  
GGGAGGAGCTCGCCCCGCGAGAGGCTGCTGCAGAAGGAAGAAAAAGCCACAGGCCCGTGAGACATCCACG  
GAGAACACAGAAAACGCATGTGGCCTATGAAGCGGCTAATGGTGAGGAAGGCGAAGATGCTGAGCCCTC  
AAAGTGCCGTTTGGGAGCCCCAGAAGTGGCAGCAGCAACTGGCCAACATCCGCATCATGAGAAGCAAGA  
AGGATGCACCTGTGGACCAGCTAGGCGCCGAGCACTGCTATGATGCAAGTGCCCCCGAAGGTGAGGAG  
GTACCAGTACTCCTGTCGCTGATGCTCTCCAGCCAGACCAAGACCAGGTCACAGCAGGTGCCATGCAA  
CGGCTCCGGGCCCGGGCTTACTGTGGAGAGCATCCTGCAGACCGATGATGACACGCTAGGCAGACTCA  
TCTACCCTGTGGGCTTCTGGAGGAACAAGGTAATAACATCAAGCAGACAACCGCCATCCTGCAGCAGCG  
CTACGAAGGGGACATCCCTGCTCCGTGGCTGAGCTGGTAGCCTTGCCAGGTGTTGGGCCCAAGATGGCA  
CACTTGGCTATGGCTGTGGCCTGGGGACCATATCAGGCATAGCAGTGGACACACATGTGCACAGAATAG  
CCAACAGACTGAGGTGGACCAAGAAGATGACCAAGACCCAGAAGAGACACGCAAGAAGTGAAGAGTG  
GCTACCCAGGGTGTGTGGAGTGAAGTCAACGGACTACTGGTAGGCTTCGGCCAACAGATCTGTCTTCT  
GTCCATCTCGATGTCAGGCTTGCTCAACAAGGCCCTGTGCCCTGCTGCCAGGATCTC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



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**Protein Sequence:** >MG218943 representing NM\_008743  
 Red=Cloning site Green=Tags(s)

MNSGVRMVTRSRSRATRIASEGCREELAPREAAAEGRKSHRPVHRPRTQKTHVAYEAANGEEGEDAEP  
 KVPVWEPQNWQQQLANIRIMRSKKDAPVDQLGAHCYDASAPPKVRRYQVLLSLMLSSQTKDQVTAGAMQ  
 RLRARGLTVESILQTDDDLGRLLIYPVGFWRNKVKYIKQTTAILQQRVEGDIPASVAELVALPGVGP  
 KMAHLAMAVAWGTISGIAVDTHVHRIANRLRWTKKMTKTPETRKNLEEWLPRVLWSEVNGLLVGF  
 GQQICLPVHPRCQAELNKKALCPAAQDL

TRTRPLE - GFP Tag - V

**Restriction Sites:**

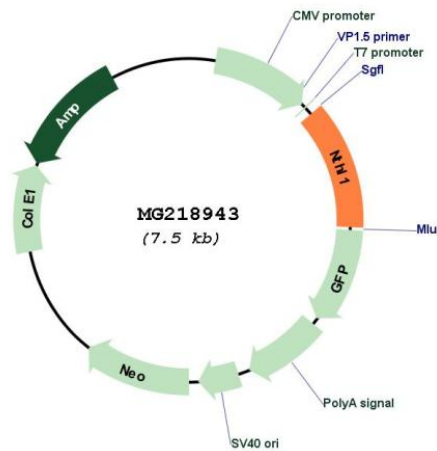
SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_008743

**ORF Size:** 900 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_008743.2</a> , <a href="#">NP_032769.2</a>
<b>RefSeq Size:</b>	1080 bp
<b>RefSeq ORF:</b>	903 bp
<b>Locus ID:</b>	18207
<b>UniProt ID:</b>	<a href="#">Q35980</a>
<b>Cytogenetics:</b>	17 A3.3
<b>Gene Summary:</b>	Bifunctional DNA N-glycosylase with associated apurinic/aprimidinic (AP) lyase function that catalyzes the first step in base excision repair (BER), the primary repair pathway for the repair of oxidative DNA damage. The DNA N-glycosylase activity releases the damaged DNA base from DNA by cleaving the N-glycosidic bond, leaving an AP site. The AP lyase activity cleaves the phosphodiester bond 3' to the AP site by a beta-elimination. Primarily recognizes and repairs oxidative base damage of pyrimidines.[UniProtKB/Swiss-Prot Function]