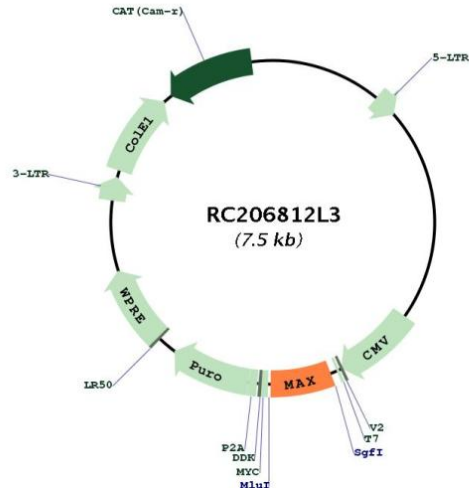


Plasmid Map:


ACCN: NM_145112

ORF Size: 453 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_145112.1](#), [BC025685.1](#)

RefSeq Size: 2018 bp

RefSeq ORF: 456 bp

Locus ID:	4149
UniProt ID:	P61244
Cytogenetics:	14q23.3
Domains:	HLH
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	MAPK signaling pathway, Pathways in cancer, Small cell lung cancer
MW:	17.2 kDa

Gene Summary: The protein encoded by this gene is a member of the basic helix-loop-helix leucine zipper (bHLHZ) family of transcription factors. It is able to form homodimers and heterodimers with other family members, which include Mad, Mxi1 and Myc. Myc is an oncoprotein implicated in cell proliferation, differentiation and apoptosis. The homodimers and heterodimers compete for a common DNA target site (the E box) and rearrangement among these dimer forms provides a complex system of transcriptional regulation. Mutations of this gene have been reported to be associated with hereditary pheochromocytoma. A pseudogene of this gene is located on the long arm of chromosome 7. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2012]