

Product datasheet for TP504100

Six2 (NM_011380) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse sine oculis-related homeobox 2 (Six2), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR204100 representing NM_011380 Red=Cloning site Green=Tags(s)

MSMLPTFGFTQEQVACVCEVLQQGGNIERLGRFLWSPACEHLHKNESVLKAKAWAFHRGNFRELYKIL
ESHQFSPHNHAKLQQLWLKAHYIEAEKLRGRPLGAVGKYRVRKFLPRSIWDGEETSICYFKEKRSVLR
EWYAHNPYPSPREKRELAETGLTTTQVSNWFKNRRQRDRAAEAKERENSENSNSSHNPLASSLNGSGK
SVLGSSEDEKTPSGTPDHSSSSPALLLSPPPPPGLPSLHSLGHPPGPSAVPVPVPGGGGADPLQHHHSLQ
DSILNPMSANLVDLGS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-MYC/DDK
Predicted MW:	33.2 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_035510
Locus ID:	20472
UniProt ID:	Q62232



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RefSeq Size: 2108

Cytogenetics: 17 55.72 cM

RefSeq ORF: 888

Summary: Transcription factor that plays an important role in the development of several organs, including kidney, skull and stomach. During kidney development, maintains cap mesenchyme multipotent nephron progenitor cells in an undifferentiated state by opposing the inductive signals emanating from the ureteric bud and cooperates with WNT9B to promote renewing progenitor cells proliferation. Acts through its interaction with TCF7L2 and OSR1 in a canonical Wnt signaling independent manner preventing transcription of differentiation genes in cap mesenchyme such as WNT4. Also acts independently of OSR1 to activate expression of many cap mesenchyme genes, including itself, GDNF and OSR1. During craniofacial development plays a role in growth and elongation of the cranial base through regulation of chondrocyte differentiation (PubMed:20515681). During stomach organogenesis, controls pyloric sphincter formation and mucosal growth through regulation of a gene network including NKX2-5, BMPR1B, BMP4, SOX9 and GREM1 (PubMed:19660448). During branchial arch development, acts to mediate HOXA2 control over the insulin-like growth factor pathway (PubMed:18321982). Also may be involved in limb tendon and ligament development (PubMed:7720577). Plays a role in cell proliferation and migration (By similarity). [UniProtKB/Swiss-Prot Function]