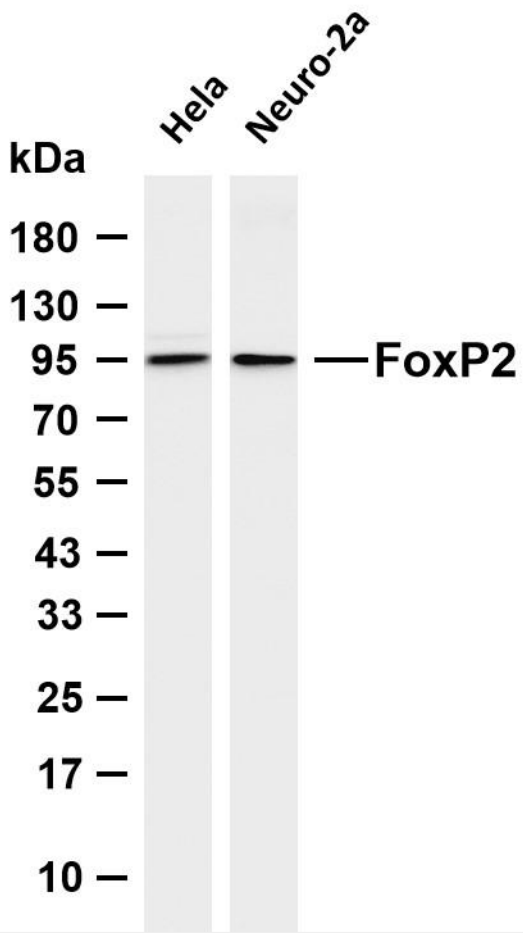
FoxP2 Rabbit mAb

Catalog No	YP-rAb-17045
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IF,IP,ELISA
Gene Name	FOXP2
Protein Name	Forkhead box protein P2
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	WB 1:1000-1:5000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200;
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15° C to -25° C/1 year(Do not lower than -25° C)
Synonyms	FOXP2 ; CAGH44 ; TNRC10 ; Forkhead box protein P2 ; CAG repeat protein 44 ; Trinucleotide repeat-containing gene 10 protein
Observed Band	95kD
Calculated Molecular Weight	80kD
Cell Pathway	Nucleus .
Tissue Specificity	Isoform 1 and isoform 6 are expressed in adult and fetal brain, caudate nucleus and lung.
Function	developmental stage:Expressed in the brain at 15 and 22 weeks of gestation, with a pattern of strong cortical, basal ganglia, thalamic and cerebellar expression. Highly expressed in the head and tail of nucleus caudatus and putamen. Restricted expression within the globus pallidus, with high levels in the pars interna, which provides the principal source of output from the basal ganglia to the nucleus centrum medianum thalami (CM) and the major motor relay nuclei of the thalamus. In the thalamus, present in the CM and nucleus medialis dorsalis thalami. Lower levels are observed in the nuclei anterior thalami, dorsal and ventral, and the nucleus parafascicularis thalami. Expressed in the ventrobasal complex comprising the nucleus ventralis posterior lateralis/medialis. The ventral tier of the thalamus exhibits strong expression, including nuclei ventralis anterior, lateralis and posterior lateralis pars oralis. Also expressed in the nucleus

	subthalamicus bilaterally and in the nucleus ruber.,Disease:A chromosomal aberration disrupting FOXP2 is a cause of severe speech and language impairment. Translocation t(5;7)(q22;q31.2).,Disease:Defects in FOXP2 are the cause of speech-language disorder 1 (SPCH1) [MIM:602081]; also known as autosomal dominant speech and language disorder with orofacial dyspraxia. Affected individuals have a severe impairment in the selection and sequencing of fine orofacial movements, which are necessary for articulation. They also show deficits in several facets of language processing (such as the ability to break up words into their constituent phonemes) and grammatical skills.,Domain:The leucine-zipper is required for dimerization and transcriptional repression.,Function:Transcriptional repressor that may play a role in the specification and differentiation of lung epithelium. May also play a role in developing neural, gastrointestinal and cardiovascular tissues. Can act with CTBP1 to synergistically repress transcription but CTPBP1 is not essential. Involved in neural mechanisms mediating the development of speech and language.,online information:FOXP2 entry,online information:Talking heads - Issue 51 of October 2004,similarity:Contains 1 C2H2-type zinc finger.,similarity:Contains 1 fork-head DNA-binding domain.,subunit:Forms homodimers and heterodimers with FOXP1 and FOXP4. Dimerization is required for DNA-binding. Interacts with CTBP1.,tissue specificity:Isoform 1 and isoform 6 are expressed in adult and fetal brain, caudate nucleus and lung.,
Background	This gene encodes a member of the forkhead/winged-helix (FOX) family of transcription factors. It is expressed in fetal and adult brain as well as in several other organs such as the lung and gut. The protein product contains a FOX DNA-binding domain and a large polyglutamine tract and is an evolutionarily conserved transcription factor, which may bind directly to approximately 300 to 400 gene promoters in the human genome to regulate the expression of a variety of genes. This gene is required for proper development of speech and language regions of the brain during embryogenesis, and may be involved in a variety of biological pathways and cascades that may ultimately influence language development. Mutations in this gene cause speech-language disorder 1 (SPCH1), also known as autosomal dominant speech and language disorder with orofacial dyspraxia. Multiple alternative transcripts encoding different isofor
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-FoxP2 antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: Hela Lane 2: Neuro-2a Predicted band size: 80kDa Observed band size: 95kDa