# Product Datasheet

## FoxP2 Antibody - BSA Free
## NBP1-86671

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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**Publications: 5**

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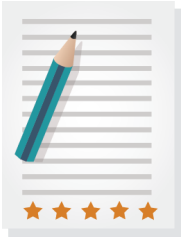
www.novusbio.com/NBP1-86671

Updated 4/1/2025 v.20.1





# NBP1-86671

FoxP2 Antibody - BSA Free

## Product Information

| | |
|---|---|
| **Unit Size** | 0.1 ml |
| **Concentration** | Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services. |
| **Storage** | Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles. |
| **Clonality** | Polyclonal |
| **Preservative** | 0.02% Sodium Azide |
| **Isotype** | IgG |
| **Purity** | Immunogen affinity purified |
| **Buffer** | PBS (pH 7.2) and 40% Glycerol |

## Product Description

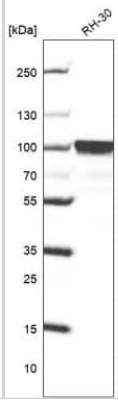
| | |
|---|---|
| **Host** | Rabbit |
| **Gene ID** | 93986 |
| **Gene Symbol** | FOXP2 |
| **Species** | Human, Mouse, Rat |
| **Reactivity Notes** | Rat reactivity reported in scientific literature (PMID: 25926446). Mouse reactivity reported in scientific literature (PMID: 26407299). |
| **Immunogen** | This antibody was developed against Recombinant Protein corresponding to amino acids: AQQLVFQQQLLQMQQLQQQQHLLSLQRQGLISIPPGQAALPVQSLPQAGLSPA EIQQLWKEVTGVHSMEDNGIKHGGLDLTTNNSSSTTSSNTSKASPPITHHS |

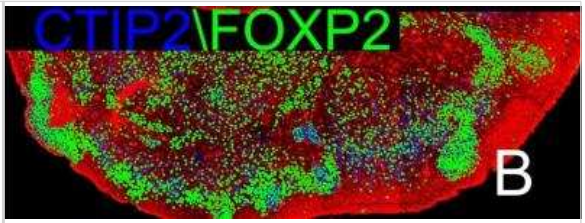
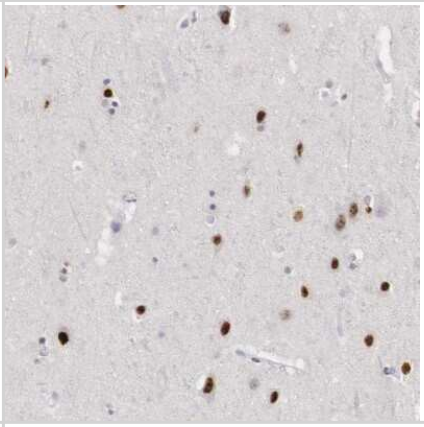
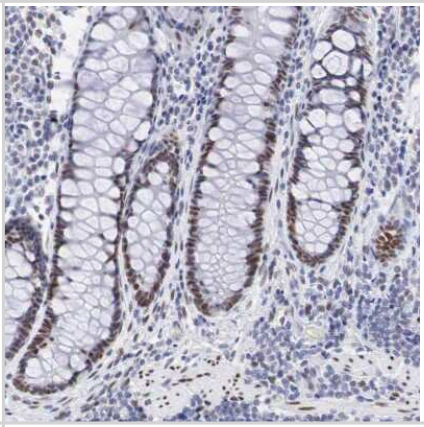
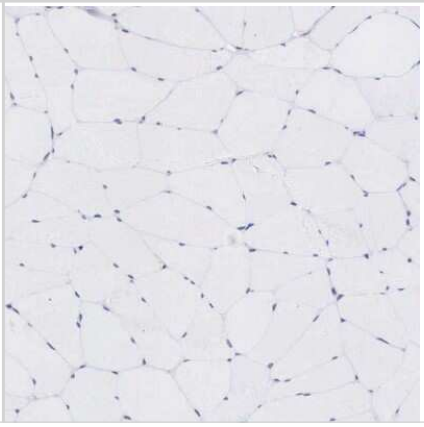
## Product Application Details

| | |
|---|---|
| **Applications** | Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin |
| **Recommended Dilutions** | Western Blot 0.04-0.4 ug/ml, Immunohistochemistry 1:200 - 1:500, Immunocytochemistry/ Immunofluorescence Reported in scientific literature (PMID: 25926446 and 25926446)., Immunohistochemistry-Paraffin 1:200-1:500 |
| **Application Notes** | For IHC-Paraffin, HIER pH 6 retrieval is recommended. |

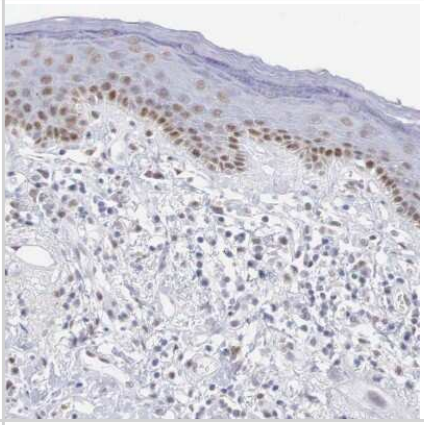
## Images

Western Blot: FoxP2 Antibody [NBP1-86671] - Analysis in human cell line RH-30.

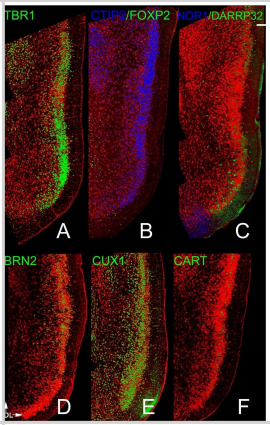


| | |
|---|---|
| Immunohistochemistry: FoxP2 Antibody [NBP1-86671] - Patterns of neocortical layer markers in the OT. Both CTIP2 and FOXP2 cells were broadly present in Layer 2 and scattered in Layer 3. Dorsal to top, lateral to right. Image collected and cropped by CiteAb from the following publication (//pubmed.ncbi.nlm.nih.gov/26407299/) licensed under a CC-BY license. |   |
| Immunohistochemistry-Paraffin: FoxP2 Antibody [NBP1-86671] - Staining of human cerebral cortex shows moderate to strong nuclear positivity in neurons. |  |
| Immunohistochemistry-Paraffin: FoxP2 Antibody [NBP1-86671] - Staining of human rectum shows moderate nuclear positivity in glandular cells. |  |
| Immunohistochemistry-Paraffin: FoxP2 Antibody [NBP1-86671] - Staining of human skeletal muscle shows no positivity in striated muscle fibers as expected. |  |

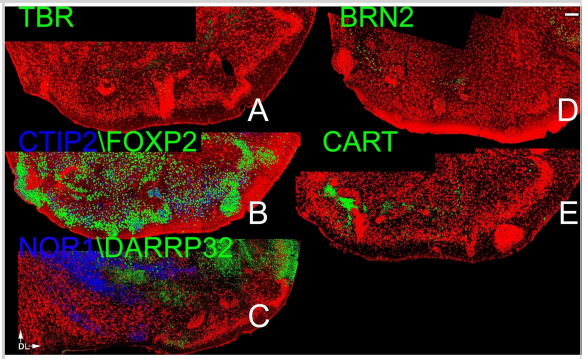
Immunohistochemistry-Paraffin: FoxP2 Antibody [NBP1-86671] - Staining of human skin shows moderate nuclear positivity in deep epidermal cells.



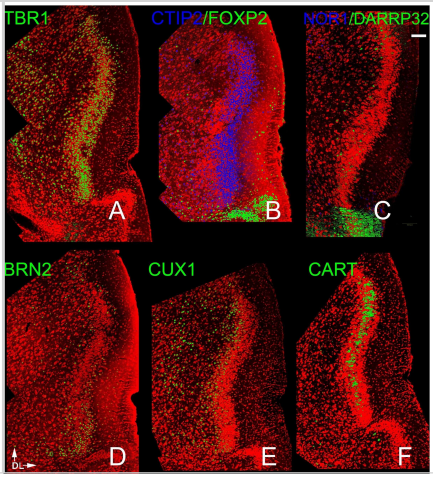
Immunocytochemistry/ Immunofluorescence: FoxP2 Antibody [NBP1-86671] - Patterns of neocortical layer markers in the PPC.A) TBR-1 heavily labeled cells in Layer 2 as well as scattered cells in Layer 3. As in the APC many cells in layers 2 & 3 exhibited the deep marker CTIP2 (B). Only widely scattered cells exhibited FOXP2 & DAARP 32 & NOR1 (B,C). The other three makers exhibited very different patterns: CUX 1 staining (E) was strong throughout layers 2 & 3, BRN2 staining much more modest in the same regions, CART was restricted to the middle of layer 2 (F). Scale bar = 200µm. Dorsal to top, lateral to right. Image collected & cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0138541), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



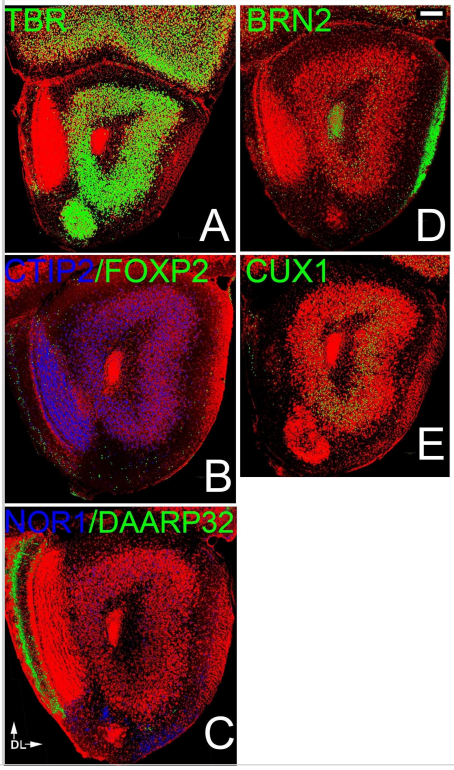

Immunocytochemistry/ Immunofluorescence: FoxP2 Antibody [NBP1-86671] - Patterns of neocortical layer markers in the OT.A) TBR-1 (A), BRN2 (D) & CART (E) were only found scattered in the very deepest regions of the OT. All four of the deep laminar markers heavily labeled the region. Both CTIP2 & FOXP2 cells were broadly present in Layer 2 & scattered in Layer 3 (Fig 6b). On the medial side most FOXP2 cells coexpressed CTIP2 but the percentage of cells with both markers was reduced laterally. DARRP-32 cells were dense on the lateral side near the APC & in deep regions of the OT, while NOR1 cells were found in Layer 2 in the medial OT (Fig 6c). Scale bar = 200µm. Dorsal to top, lateral to right. Image collected & cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0138541), licensed under a CC-BY license. Not internally tested by Novus Biologicals.




Immunocytochemistry/ Immunofluorescence: FoxP2 Antibody [NBP1-86671] - Patterns of neocortical layer markers in the APC.A) TBR-1 heavily labeled cells in Layer 2 as well as scattered cells in Layer 3. Of the 4 deep layer markers (B,C), only CTIP2 exhibited dense staining. The other three (FOXP2, NOR1 & DAARP32) labeled sparse number in Layers 1–3. The dense staining for FOXP2 & DAARP32 seen at the bottom of the figures sharply demarcates the APC from the more ventral OT. The other three makers exhibited very different patterns: BRN2 staining was found more in the ventral APC (D), CUX 1 in the deeper portions of both Layer 2 & 3 (E), & CART in the middle of Layer 2(F). Scale bar = 200µm. Dorsal to top, lateral to right. Image collected & cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0138541), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: FoxP2 Antibody [NBP1-86671] - Patterns of neocortical layer markers in the AONpP.A). TBR1-labelled cells were found throughout Layer 2 of the AONpP as well as in the tenia tecta & mitral cell layer of the OB. B, C) Deep markers were differentially distributed in the region. Layer 2 exhibited dense & evenly-spread CTIP2-positive cells (Fig 3b), while NOR1 was found primarily in the dorsal portion of the structure (Fig 3c, top) Cells expressing the other two marker were rare & found primarily in layer 1: DARRP-32 (note dense staining in the glomerular layer of the OB at left, an area containing large numbers of dopaminergic interneurons, Fig 3c; Liu et al, 2013) & FOXP2 (most often found near the OB, Fig 3b). CTIP2 stained cells were also found in layer 1 but never in cells that expressed one of the other markers. The superficial markers were also differentially distributed. Both BRN2 (Fig 3d) & CUX1 (Fig 3e) were observed primarily in deep cells (except in pars medialis, where CUX1-labeled cells spanned the entire region) with highest densities in the region under the LOT (pars lateralis). All CUX1 cells also expressed BRN2, & over 90% of CUX1 & BRN2 cells also expressed CTIP2. The anti-BRN2 antibody also labeled the LOT (right) & RMS (core of the olfactory peduncle). Scale bar = 200µm. Dorsal to top, lateral to right. Image collected & cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0138541), licensed under a CC-BY license. Not internally tested by Novus Biologicals.




## Publications

Aquiles A, Fiordelisio T, Luna-Munguia H, Concha L. Altered functional connectivity and network excitability in a model of cortical dysplasia Scientific Reports 2023-07-30 [PMID: 37518675] (Immunocytochemistry/ Immunofluorescence)

Brunjes PC, Osterberg SK, et al. Developmental Markers Expressed in Neocortical Layers Are Differentially Exhibited in Olfactory Cortex. PLoS One 2015-01-01 [PMID: 26407299] (IF/IHC, Mouse)

Abdi A, Mallet N, Mohamed FY et al. Prototypic and Arkypallidal Neurons in the Dopamine-Intact External Globus Pallidus. J Neurosci 2015-04-29 [PMID: 25926446] (ICC/IF, Rat)

Reimers-Kipping S, Hevers W, Paabo S et al. Humanized Foxp2 specifically affects cortico-basal ganglia circuits. Neuroscience 2011-02-01 [PMID: 21111790]

Enard W, Gehre S, Hammerschmidt K et al. A humanized version of Foxp2 affects cortico-basal ganglia circuits in mice. Cell 2009-05-01 [PMID: 19490899]

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## Products Related to NBP1-86671

| | |
|---|---|
| NBP1-86671PEP | FoxP2 Recombinant Protein Antigen |
| HAF008 | Goat anti-Rabbit IgG Secondary Antibody [HRP] |
| NB7160 | Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP] |
| NBP2-24891 | Rabbit IgG Isotype Control |

### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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