Tyrosine hydroxylase

Cat.No. 213 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

**Data Sheet**

<table>
<thead>
<tr>
<th>Reconstitution/Storage</th>
<th>100 µl antiserum, lyophilized. For reconstitution add 100 µl H₂O, then aliquot and store at -20°C until use.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications</td>
<td>WB: not tested yet \ IP: not tested yet \ ICC: not tested yet \ IHC: 1 : 500 \ IHC-P/FFPE: yes</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reacts with: human (P07101), rat (P04177), mouse (P24529). Other species not tested yet.</td>
</tr>
<tr>
<td>Specificity</td>
<td>Shows some cross-reactivity to tryptophane hydroxylase.</td>
</tr>
</tbody>
</table>

**TO BE USED IN VITRO / FOR RESEARCH ONLY**

**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

Tyrosine hydroxylase is one of the key enzymes in the synthesis pathway of catecholamines like adrenalin, noradrenalin and dopamin and is frequently used as a marker for dopaminergic neurons. This neuronal subpopulation is especially affected in Parkinson’s disease.

**Selected References SYSY Antibodies**

Catecholaminergic-to-cholinergic transition of sympathetic nerve fibers is stimulated under healthy but not under inflammatory arthritic conditions.

Stangl H, Springorum HR, Muschter G, Grässel S, Straub RH

Stratified organization and disorganization of inner plexiform layer revealed by TNAP activity in healthy and diabetic rat retina.
Cell and tissue research (2015) 359(2): 409-421. IHC

**Selected General References**

Mesencephalic dopamine neuron number and tyrosine hydroxylase content: Genetic control and candidate genes.

Tyrosine hydroxylase, the rate-limiting enzyme in catecholamine biosynthesis: discovery of common human genetic variants governing transcription, autonomic activity, and blood pressure in vivo.

Differential regulation of the human tyrosine hydroxylase isoforms via hierarchical phosphorylation.
Lehmann IT, Bobrovskaya L, Gordon SL, Dunkley PR, Dickson PW

Alpha-synuclein activation of protein phosphatase 2A reduces tyrosine hydroxylase phosphorylation in dopaminergic cells.
Peng X, Peng XM, Tehranian R, Dietrich P, Stefanis L, Perez RG

Morphology of calretinin and tyrosine hydroxylase-immunoreactive neurons in the pig retina.
Jeon YK, Kim SY, Jeon CJ

Postmitotic, postmigrational expression of tyrosine hydroxylase in olfactory bulb dopaminergic neurons.
McLean JM, Shipley MT