



#35RB-19

# Natural monoamine oxidase inhibitor to control Parkinson's Disease

**Monoamine oxidase inhibitors (MAOIs)** contain two isoforms: **MAO-A** and **MAO-B**. Oxidative deamination catalyzed by MAO-B is one of the main dopamine degradation pathways in the human brain. MAO-A metabolizes serotonin and norepinephrine; the deficiency of these two neurotransmitters is associated with the development of concomitant depression. Hence, **MAO inhibition is one of the objectives for therapeutic treatment of Parkinson's Disease (PD)**.

The INTA Institute of Biological Resources, in collaboration with the Pharmaco Botanical course and the Biological and Physical Chemistry Institute of the School of Pharmacy and Biochemistry of the University of Buenos Aires (FFyB-UBA, as per the Spanish acronym) has obtained ***Ipomoea purpurea* extracts** that contain compounds that inhibit **MAO** and make a promising contribution to the development of new drugs for symptomatic treatment of PD.

## ADVANTAGES:

- Natural extract
- National raw material
- Industrial production and scaling feasibility

**TECHNOLOGY READINESS STATUS:** Pharmaco botanical, phytochemical and biological (in vitro) analysis of human recombinant Monoamine Oxidase enzymes inhibition (isoforms MAO-A and MAO-B). Cytotoxicity tests in the cell cultures obtained. This technology requires characterization of active principles, biological in vivo trials and industrial scaling.

**INTELLECTUAL PROPERTY RIGHTS STATUS:** The product and process to obtain a MAOI from plant extracts qualifies for invention patent protection.

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