In vitro efficacy tests

for food supplements and nutraceutical products

ANTI OXIDANT POWER

Fields	Service	End point technologies	Cellular model
ANTIOXIDANT ACTIVITY	AOP1	Measure of intracellular ROS/free radical scavenging*	Hepatocytes or other cell models
	AOP2	Measure of induction of Antioxidant Response Element ARE/Nrf2 - mediated pathway (luciferase reporter of gene expression)	Hepatocytes
	AOP3	Measure of lipid peroxidation neutralization at the cell plasma membrane (AAPH/DCFHDA assay)	Hepatocytes or other cell models
	AOP CAT	Measure of H2O2 neutralization or catalase-like activity*	Hepatocytes or other cell models
INTESTINAL ABSORPTION	AOP TRANS	Assessment of intestinal absorption or transepithelial transport. Measure of trans-epithelial electrical resistance (TEER).	Enterocyte-like models
INFLAMMATION EVALUATION	AOP IMM	Investigation of immune modulatory effects of test sample by determination of peripheral blood cell pro-inflammatory cytokine production	PBMCs **
CELL VITALITY	LUCS	Standard measure of viability/cytotoxicity (at 1h, 4 h, 24 h)*	All models

*** AOP patented technology**

**** PBMCs Peripheral Blood Mononuclear Cells**

- All assays are available for compounds, extracts, finished products.
- Related claims: antioxidant / anti-free radical / scavenger activity, prevents lipid peroxidation, protects against oxidative stress, activates defence against ROS, cytoprotective effect, anti-inflammatory capacity.
- All studies include a full report (material and methods, comparison with standard molecules, samples ranking, data analysis) along with monographs for all samples (ex: anti-inflammatory or antioxidant indexes, dose-effect curves, efficacy concentrations EC50, EC10, EC90, CI 95%, etc...).
- All experiments (but AOP TRANS and AOP IMM) made on triplicates in a dose-response mode (7-9 concentrations) and replicated in order to find the right concentration range if needed, all assays include a cytotoxicity assessment.
- Graphs illustrating main results are presented in a communication flyer mode.
- Adaptation to alternative cell model if not available in our cell line bank (all assays but AOP2).

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