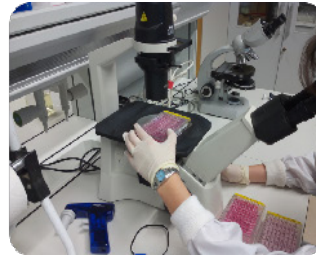
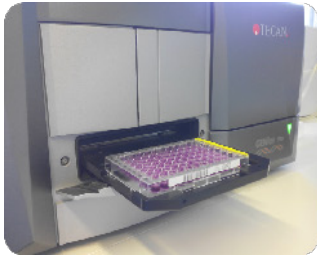


NutraTest[®]

NutraTest[®] is an in vitro multiparametric platform that includes 30 key targets to prove the health beneficial bioactivities of nutraceuticals, which are offered in two packs: Standard Screening and Advanced Screening (please see the back page).



This platform is very competitive in cost and time and it is very useful to provide new and additional knowledge in respect to healthy food and nutraceutical products of companies and research groups.

NutraTest[®] Targets (* Proprietary cell lines)

Cytotoxicity: NIH-3T3-NucLight-Red fibroblasts* (fluorescent microscopy)

Cytotoxicity: A549-NucLight-Red lung cancer cells* (fluoresc. microscopy)

Cytotoxicity: DU145-NucLight-Red prostate cancer cells* (fluoresc. micr.)

Citotoxicity/Cell Metabolism: (RAW264.7 cells)

Real-time wound healing in gastric epithelial cells (AGS cells)

MMP9 regulation in macrophages (RAW264.7 cells)

Induction of Nrf2 activity (luciferase assay in HaCaT-Nrf2-Luc cells*)

Cellular antioxidant activity (Fluorescent assay in HaCaT cells)

STAT3 activity (luciferase assay in RAW-STAT3-Luc cells*)

NF-κB activity (luciferase assay in RAW-KBF-Luc cells*)

NF-κB activity (luciferase assay in NIH-3T3-KBF-Luc cells*)

AP-1 activity (luciferase assay in RAW-AP-1-Luc cells*)

Autophagy in keratinocytes (HaCaT) (Fluorescence assay)

HIF-1α activation (luciferase assay in NIH-3T3-EPO-Luc cells*)

HIF-1α inhibition (luciferase assay in NIH-3T3-EPO-Luc cells*)

Glucose uptake in adipocytes (Fluorescent assay in 3T3-L1 cells)

PPARγ activity (luciferase assay in 3T3-L1 cells)

PPARα activity (luciferase assay in 3T3-L1 cells)

TRPV-1 activity (Fluorescence in HEK293-TRPV-1 cells*)

TGR5 agonist activity (Luciferase activity in CHO-TGR5-CRE.Luc)

Induction of Collagen gene express. (NIH-3T3-COL1A2-Luc cells*)

CB1 agonistic activity (Luciferase activity in HEK293-CB1-CRE.Luc cells*)

CB2 agonistic activity (Luciferase activity in HEK293-CB2-CRE.Luc cells*)

T cell activation/inhibition assays (Fluoresc. activity in Jurkat-GFP-cells*)

Nitric oxide inhibition in macrophages (RAW264.7 cells)

IL-6 inhibition in macrophages (RAW264.7 cells)

IL-8 inhibition in macrophages (RAW264.7 cells)

TNFα inhibition in macrophages (RAW264.7 cells)

PGE₂ inhibition in macrophages (RAW264.7 cells)

IL-23 inhibition in macrophages (RAW264.7 cells)

Standard and Advanced Screenings with Applications

The platform is disaggregated in two screenings: the Standard with 15 general key targets (red) and the Advanced Screening with Standard + 15 more complex key targets (blue)

	Cancer	Inflammation/ Immunomodulation	Brain Function/ Neurodegeneration	Cell Metabolism/ Metabolic diseases	Arthritis	Cosmeceutical	Gastrointestinal diseases	Vascular diseases	Nociception/Pain	Wound healing/ Angiogenesis
1. Cytotoxicity in NIH-3T3 cells	✓									
2. Cytotoxicity in A549 cells	✓									
3. Cytotoxicity in DU145 cells	✓									
4. Wound healing activity in AGS	✓					✓	✓			✓
5. Nrf2 activity	✓	✓	✓			✓		✓		
6. MMP9 in macrophages	✓	✓	✓			✓	✓			✓
7. TRPV-1 activity		✓		✓			✓		✓	
8. Cellular antioxidant activity		✓	✓	✓	✓	✓	✓	✓		✓
9. STAT3 activity in macrophages	✓	✓			✓		✓	✓		
10. NF-κB activity in fibroblasts	✓				✓					✓
11. NF-κB activity in macrophages	✓	✓			✓		✓	✓		
12. AP-1 activity in macrophages	✓	✓			✓		✓	✓		
13. Phagocytosis in macrophages		✓	✓			✓				
14. HIF-1α activation		✓	✓		✓	✓	✓			✓
15. HIF-1α inhibition	✓				✓	✓		✓		
16. Glucose uptake			✓	✓		✓				
17. PPARγ activity	✓	✓	✓	✓		✓			✓	
18. PPARα activity		✓	✓	✓		✓				
19. CB1 agonistic activity			✓	✓				✓	✓	
20. CB2 agonistic activity		✓	✓	✓	✓	✓	✓			
21. TGR5 agonist activity			✓	✓		✓	✓			
22. Col1A2 gene transcription						✓	✓			✓
23. T cell activation assays		✓			✓	✓	✓			
24. NO in macrophages	✓	✓	✓	✓				✓	✓	✓
25. PGE ₂ in macrophages	✓	✓	✓		✓		✓		✓	
26. TNFα in macrophages		✓	✓	✓	✓	✓	✓	✓		
27. IL-6 in macrophages		✓	✓	✓		✓	✓	✓		✓
28. IL-8 in macrophages		✓				✓	✓	✓		✓
29. IL-23 in macrophages		✓		✓	✓	✓				✓
30. Cytotoxicity in macrophages		✓	✓	✓						

Standard Screening
 Advanced Screening (Includes Standard Screening)