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Peroxisome proliferator activated receptor gamma reporter gene assay

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We use this protocol and it's working

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Abstract

The HG5LN-hPPAR γ assay using a reporter gene technique is an *in vitro* tool that provides mechanistic data. The assay is used to establish signal activation (agonism) or blocking of the hPPAR γ (antagonism) caused by a ligand. Unliganded chimeric PPAR γ binds to GAL4RE and transactivates luciferase at a basal level. Once a chemical ligand binds to chimeric PPAR γ , together they form heterodimers with RXR and recruit cofactors to modulate luciferase transcription. The expression of luciferase is thus directly linked to the concentration of the effector ligand. Once the substrate of luciferase, luciferin, is added to the cells, it is possible to assess transactivation by measuring cell luminescence. Luciferase activity can be evaluated quickly and inexpensively with a number of commercially available test kits. The test system for the assessment of the relative hPPAR γ activation by test chemicals provided here utilises the HG5LN-hPPAR γ cell line.



Attachments



SOP_HG5LN-

hPPARg.pdf

844KB

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