Physiogenex
THE METABOLIC DISEASES EXPERTS

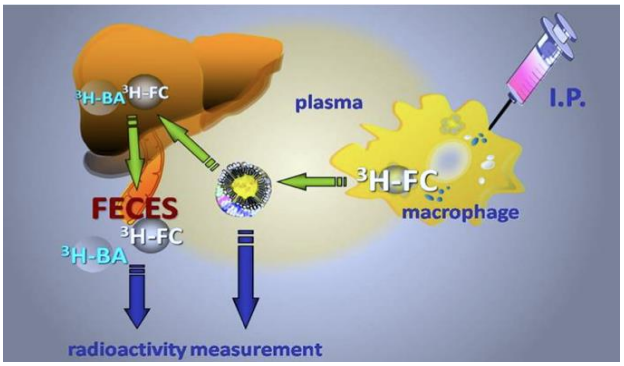
Reverse Cholesterol Transport

State-of-the-art technique to directly demonstrate that your compound promotes reverse cholesterol transport and has therefore the potential to prevent cardiovascular diseases.

Key benefits :

- ✓ ***In vivo* macrophage-to-feces reverse cholesterol transport** using radiolabeled cholesterol is the best approach to evaluate compounds affecting **HDL metabolism** and **reverse cholesterol transport**.
- ✓ Demonstrate a beneficial effects of your compound on macrophage-to-feces reverse cholesterol transport
- ✓ Essential and robust data to demonstrate that your compound promotes the transport of cholesterol from peripheral tissues to the feces and has therefore the potential to prevent atherosclerosis

DESCRIPTION AND PARAMETERS



Parameters evaluated:

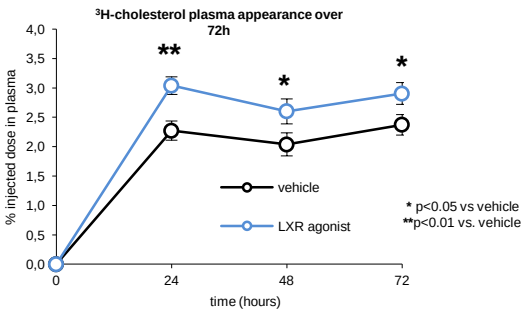
- Plasma total cholesterol, HDL-c and HDL-c/TC ratio
- ^{3}H-cholesterol appearance from macrophage to plasma and liver
- Macrophage-derived cholesterol fecal excretion: ^{3}H-tracer recovered in fecal free sterols and bile acids

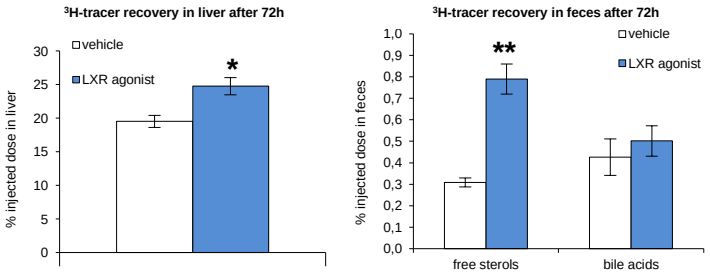
SCIENTIFIC & PHARMACOLOGICAL RELEVANCE

- Hamsters fed a chow + 0.3% cholesterol diet over 4 weeks then treated with vehicle or LXR agonist GW3965
- Treatment: LXR agonist GW3965 30mg/kg, twice daily
- Duration: 10 days

LXR activation promotes macrophage-to-feces *in vivo* reverse cholesterol transport in hamsters fed a chow +0.3% cholesterol diet :

- 30% increase in ^{3}H-cholesterol plasma appearance after radiolabeled macrophages injection
- ^{3}H-tracer recovery in liver increases by 27%, 72h after radiolabeled macrophages injection
- macrophage-derived cholesterol fecal excretion (as free sterols) increases by 156%, 72h after radiolabeled macrophages injection





* p<0.05 vs vehicle
**p<0.01 vs. vehicle

ADD-ON STUDIES

- HDL-cholesterol turn over
- Biochemical analysis: plasma lipids, HDL-c, LDL-c, lipoprotein profiles, transfer protein activity assays (CETP, PLTP), ect...

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