

# NF-light® (Neurofilament light)

Quanterix™

UmanDiagnostics   
A Quanterix Company

Neurofilaments belong to the intermediate filament family of more than 67 members (1). Neurofilaments are the main cytoskeletal constituents in neuronal cells. They are important for the maintenance of the axonal calibre and morphological integrity, which affect the velocity and fidelity of neuronal transmissions. Three different neurofilament chains exist, named according to their size. These are Neurofilament light, medium and heavy, respectively. The Neurofilament light constitutes the backbone to which the heavier chains co-assemble, forming the neurofilament fibre (2).

## NF-light® ELISA RUO (Research Use Only)

The UmanDiagnostics NF-light® (Neurofilament light) assay is an enzymatic immunoassay designed for quantitative determinations of NF-L in human cerebrospinal fluid. The assay cross-reacts with mouse, rat, bovine, goat and macaque neurofilament light chains.

**Technology:** 2-site solid phase sandwich ELISA

**Contents:** Materials sufficient for 96 determinations including the Standard curve

### Assay procedure:

- Dilute the CSF samples (50µl) with equal amount (1+1) of Sample diluent
- Wash the wells to be used with Wash buffer (3x300 µL).
- Add 100 µL of each Standard and sample in duplicate. Incubate 1 hour at RT with agitation
- Wash the wells with Wash buffer
- Add 100 µL of freshly diluted Tracer antibody to each well. Incubate 45 minutes at RT with agitation
- Wash the wells with Wash buffer
- Add 100 µL of newly diluted Conjugate to each well. Incubate 30 minutes at RT with agitation
- Wash the wells with Wash buffer
- Add 100 µL of TMB to each well. Incubate 15 minutes at RT with agitation
- Add 50 µL of Stop reagent (STOP) to each well and read the absorbance at 450 nm (reference wavelength 620–650 nm)

#### References:

- 1) Coulombe and Wong. Nat Cell Biol 2004. 6(8):699-706
- 2) Lee et al. J Cell Biol. 1993. 122(6):1337-50



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