Quanterix®

Discovery Fueled by Ultra-Sensitivity

Nf-L Test Report

Patient Name			
Sex	Age	Date of Birth	DD-MMM-YYYY
Sample Number		Sample Type ☐ Serum	
Provider Name		Collection Date	DD-MMM-YYYY
Organization		Collection Time	HH:MM
Secure Fax#:		Date Received	DD-MMM-YYYY
		Report Date	DD-MMM-YYYY

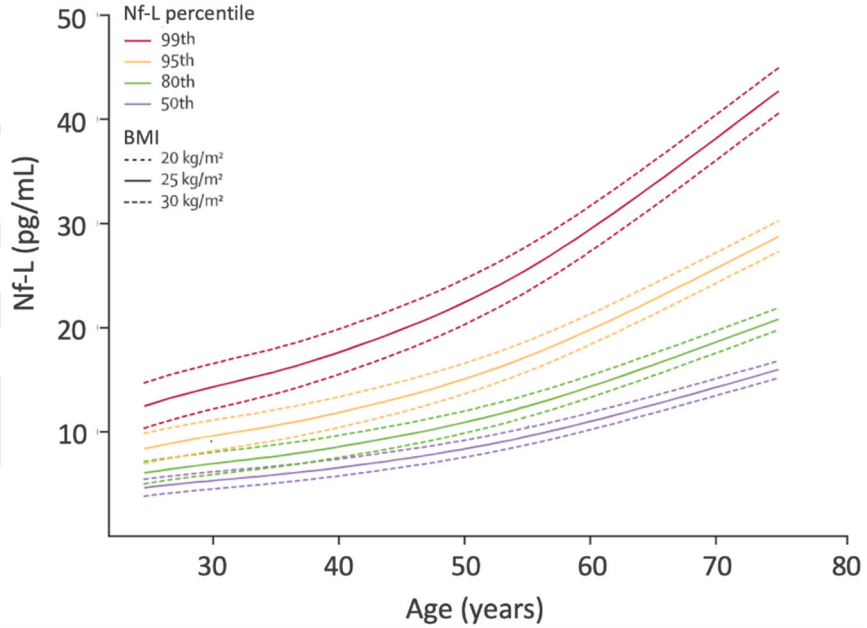
	Result (pg/mL)
104291 Quanterix Nf-L Test, Serum	XX.XX

Interpretation:

Nf-L elevation in blood can be due to many different causes, including neurodegenerative diseases or a head impact. **Nf-L results should only be used in conjunction with other clinical information when evaluating patients.** Various demographic, lifestyle, and comorbidity factors can influence Nf-L levels in serum. The largest demographic variable is age, necessitating age-adjusted reference intervals. A reference range study was conducted across 113 presumed normal healthy individuals varying in age from 19 to 69 years old. Table 1 exhibits median values and expected ranges of serum Nf-L in different age groups based on 5th percentile through 95th percentiles as estimated from Anderson-Darling fitting.

Age	Median, pg/ml	Range, pg/mL
19-39	4.86	2.47-7.25
40-49	7.01	4.44-9.58
50-59	11.02	4.79-17.25
60-69	13.12	3.97-22.27

Nf-L test results can be further visualized on the chart below which is based on a normative study of over 10,000 samples and exhibits both the age and BMI dependence of serum Nf-L.[1]



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Test Information:

The Quanterix Nf-L Test is a digital immunoassay for the quantitative determination of neurofilament light chain (Nf-L) in human serum. Nf-L is a 68 kDa cytoskeletal intermediate filament protein that is expressed in neurons. It associates with the 125 kDa neurofilament medium and the 200 kDa neurofilament heavy chains to form neurofilaments.[2] Neurofilaments are major components of the neuronal cytoskeleton and are believed to function primarily to provide structural support for the axon and to regulate axon diameter.[3] Neurofilaments can be released in significant quantities into the cerebrospinal fluid (CSF) following axonal damage or neuronal degeneration. A fraction of these proteins diffuses into the blood, where concentrations are typically 50 to 100-fold lower than in CSF.[4] Nf-L elevations have been demonstrated with traumatic brain injury, multiple sclerosis, frontotemporal dementia, Alzheimer's disease, and other neurodegenerative diseases.[5-8]

REFERENCES

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