

## Methods

Intrathecally synthesized KFLC was also calculated using a non-linear function by relating each  $KFLC_{ratio}$  (CSF kFLC/serum kFLC) to its corresponding QAlb-dependent upper normal limit ( $KFLC_{lim}$ ).  $KFLC_{lim}$  has been determined in a large cohort of patients in a previous study (Presslauer), specified by the following formula:  $kFLC_{lim} = 0.9358 \times QAlb^{0.6687}$ .

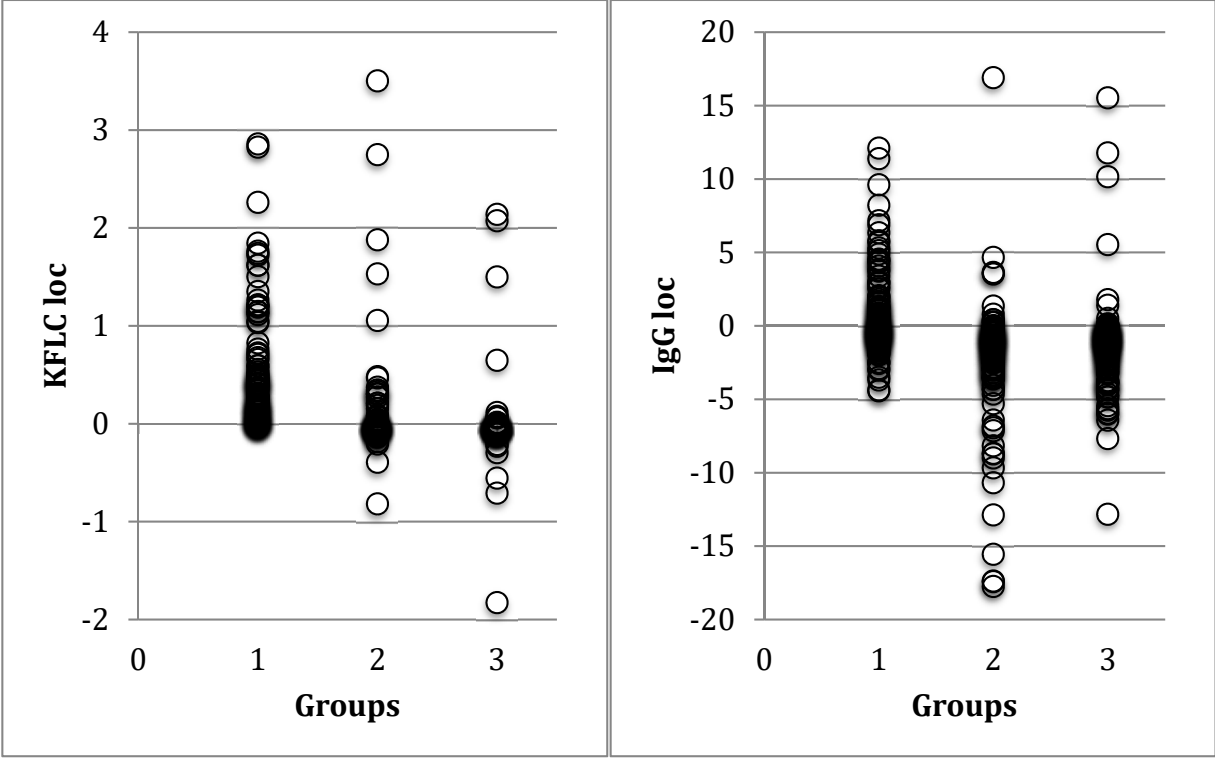
The change of KFLC concentration in CSF was calculated as the difference between  $KFLC_{ratio}$  and  $kFLC_{lim}$ , and finally corrected for the absolute KFLC serum concentration:  $KFLC_{loc} = (KFLC_{ratio} - KFLC_{lim}) \times KFLC_{serum}$ .

The same approach was employed to calculate identical parameters for intrathecally synthesized IgG ( $IgG_{loc}$ ).

**Table S1:** Correlations between IgG index and KFLC index among patients with multiple sclerosis (MS), inflammatory diseases (ID) and non-inflammatory diseases (NID).

Parameters	<i>n</i>	<i>r</i>	<i>r</i> <sup>2</sup>	<i>p</i>
All	385	0.7469	0.5579	<0.0001
MS	127	0.7780	0.6053	<0.0001
ID	117	0.6265	0.3921	<0.0001
NID	141	0.6789	0.4609	<0.0001

**Figure S1:** KFLC loc and IgG loc in MS (group 1), ID (group 2) and NID (group 3) patients.



**Figure S2:** Correlations between KFLC index, IgG index, KFLC loc and IgG loc in patients with multiple sclerosis.

