Reagent Preparation
Please use the Tau protein IMR reagents at room temperature (15-30 °C).

Specimen Collection & Preparation
1. Collect all blood samples by wearing protective equipment and following universal precautions for venipuncture. Whole blood is collected in an EDTA vacutainer blood collection tube (purple top).
2. Invert the tube smoothly 5-10 times and make sure the whole blood specimen is mix well with EDTA.
3. Centrifuge the tube for 15 minutes at 2,500 x g at room temperature to separate the plasma from the blood cells.
4. After centrifugation, plasma is taken by pipettor and start to measure. If the plasma sample is not use immediately, it must equally divide into four 1.5 mL microcentrifuge tubes or other tubes.
5. Plasma specimens are labeled and deep frozen (-20 °C or colder) immediately until needed. Avoid repeated freezing or thawing.

Procedure
1. Add 40 μL sample to glass testing tube.
2. Add 80 μL magnetic reagent to glass tube, and mix well.
3. Put the glass tube on the measuring site of IMR analyzer.
4. Wait for the end of reaction and read the result.
5. Use the table for converting to the concentration of Tau protein as reference.

Results
By using XacPro-S, we can get two signals: one is the AC signal before the reaction (Xac) and the other is the AC signal after reaction (Xac). Then we can have the IMR (%) through two signal by following function:

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IMR(%) = \frac{Xac - Xac_0}{1 + \phi_{BA} \frac{[\text{Tau}]}{\phi_o}} + B
\]

where A, B, φo, and φ are fitting parameters. For TAU, A = 2.28, B = 6.00, φo = 20.46, and φ = 0.33. The concentration of TAU protein can be available by following equation. And you can find the table for converting to the concentration of TAU as reference.

Limitations
1. The analytical range of reagent is from 0.002 to 2500 pg/mL. When the specimen with Tau protein > 2500 pg/mL is to be determined, carry out the following procedures to obtain the accurate concentration. Dilute the specimen, re-assay, and multiply the assayed Tau protein value by the dilution factor.
2. Reagents should be used before the expiration date printed on the kit label.
3. Data is based upon human plasma sample.
4. Do not use the plasma sample when it has leave to 20 °C more than 2 hours or it has something precipitated.
5. Glass testing tubes are single use only.

References