5.1 Inclusion Criteria

1. Age 18 years and older

2. Suspected anterior circulation acute ischemic stroke

3. Presenting NIH Stroke Scale score ≥ 6

4. Favorable baseline neuroimaging consisting of all of the following:

    a. ASPECTS of 6 or more on CT (or ASPECTS of ≥ 7 on MRI b. Favorable perfusion imaging on CT perfusion (CTP)/MR-perfusion weighted imaging (PWI) consisting of all of the following:

        i. Mismatch ratio of penumbra:core >1.2
        ii. Mismatch volume >10 cc
        iii. Core 2. 4. Previous treatment with TS23 or known previous allergy to antibody therapy.

5. Able to receive assigned study drug within 4.5 to 24 hours of stroke onset or last known well.

6. Able to receive assigned study drug within 90 minutes of qualifying perfusion imaging.*

7. Informed consent for study participation obtained from participant or their legally authorized representative.

*Study drug administration is encouraged within 60 minutes after qualifying perfusion image but is allowed up to 90 minutes. After 90 minutes, another perfusion image to ensure that inclusion criteria are met is required.

5.2 Exclusion Criteria

1. Plan to receive endovascular treatment.

2. Received or plan to receive IV thrombolysis.

3. Pre-stroke modified Rankin score >2.

4. Previous treatment with TS23 or known previous allergy to antibody therapy.

5. Known pregnancy, women who are breastfeeding or plan to breastfeed within 3 months of receiving TS23 or have a positive urine or serum pregnancy test for women of childbearing potential.

6. Known previous stroke in the past 90 days.

7. Known previous intracranial hemorrhage, intracranial neoplasm, subarachnoid hemorrhage, or arterial venous malformation.

8. Known active diagnosis of intracranial neoplasm.

9. Clinical presentation suggestive of a subarachnoid hemorrhage, even if initial CT scan was normal.

10. Surgery or biopsy of parenchymal organ in the past 30 days.

11. Known trauma with internal injuries or persistent ulcerative wounds in the past 30 days.

12. Severe head trauma in the past 90 days.

13. Persistent systolic blood pressure >180mmHg or diastolic blood pressure >105mmHg despite best medical management.

14. Serious systemic hemorrhage in the past 30 days.

15. Known hereditary or acquired hemorrhagic diathesis, coagulation factor deficiency, or oral anticoagulant therapy with International Normalized Ratio (INR) >1.7.

16. Platelets <100,000/mm3

17. Hematocrit <25%

18. Elevated aPTT above laboratory upper limit of normal.

19. Creatinine >4 mg/dl, or patients receiving renal dialysis, regardless of creatinine.

20. Received heparin or low molecular weight heparins (such as Dalteparin, Enoxaparin, Tinzaparin) in full therapeutic dose within the previous 24 hours.

21. Received Factor Xa inhibitors (such as Fondaparinaux, apixaban or rivaroxaban) within the past 48 hours.

22. Received direct thrombin inhibitors (e.g., argatroban, dabigatran, bivalirudin, desirudin, lepirudin) within 48 hours.

23. Received glycoprotein IIb/IIIa inhibitors within the past 14 days.

24. Known pre-existing neurological or psychiatric disease, which would confound the neurological/functional evaluations.

25. Current participation in another research drug treatment protocol (i.e., participants could not start another experimental agent until after 90 days).

26. Concurrent acute myocardial infarction, pulmonary embolism, deep venous thrombosis, or other thrombotic event that requires anticoagulation or anti-platelet treatment.