

Combined serum levels of multiple proteins in tPA-BDNF pathway may aid the diagnosis of five mental disorders

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Supplementary Table 2. Results of ROC curve analysis among the six groups.

Comparison	Analysis	tPA (pg/ml)	PAI-1 (ng/ml)	BDNF (pg/ml)	proBDNF (pg/ml)	TrkB (pg/ml)	p75NTR (pg/ml)	×6
SZ vs HCs	Sensitivity	0.760	0.680	0.680	0.720	0.720	0.480	0.960
	Specificity	0.885	0.500	0.692	0.885	0.692	0.962	0.769
	AUC	0.886	0.566	0.674	0.828	0.735	0.739	0.935
	Cutoff	2920.170	5.390	16137.240	468.250	504.000	582.005	0.257
	95% CI ^a	0.799-0.973	0.405-0.727	0.523-0.824	0.713-0.942	0.594-0.875	0.602-0.877	0.868-1.000
SZ vs MDD	Sensitivity	0.360	0.160	0.520	0.360	0.560	0.640	0.720
	Specificity	1.000	0.885	0.654	0.923	0.692	0.654	0.769
	AUC	0.696	0.410	0.522	0.581	0.581	0.643	0.798
	Cutoff	3801.405	7.180	15730.260	575.930	501.545	134.250	0.481
	95% CI ^a	0.549-0.843	0.252-0.568	0.360-0.683	0.419-0.743	0.419-0.742	0.491-0.795	0.678-0.919
SZ vs BM	Sensitivity	0.727	0.955	0.591	0.273	0.682	1.000	0.955
	Specificity	0.615	0.346	0.692	0.846	0.654	0.154	0.462
	AUC	0.650	0.662	0.578	0.475	0.656	0.541	0.745
	Cutoff	1872.525	4.820	15840.405	451.240	496.635	10.070	0.300
	95% CI ^a	0.494-0.807	0.508-0.815	0.412-0.744	0.306-0.643	0.497-0.814	0.376-0.706	0.608-0.882

SZ vs BD	Sensitivity	0.526	0.158	0.526	0.053	0.947	0.579	0.842
	Specificity	0.692	0.885	0.731	1.000	0.192	0.654	0.654
	AUC	0.574	0.426	0.637	0.334	0.467	0.618	0.721
	Cutoff	2166.495	7.310	17249.295	860.300	408.290	134.250	0.393
	95% CI ^a	0.400-0.747	0.253-0.600	0.472-0.802	0.170-0.498	0.294-0.639	0.455-0.782	0.570-0.871
SZ vs PD	Sensitivity	0.833	0.542	0.500	0.708	0.750	0.333	0.750
	Specificity	0.615	0.885	0.885	0.885	0.692	0.923	0.962
	AUC	0.747	0.695	0.670	0.821	0.690	0.641	0.933
	Cutoff	1895.625	7.110	18633.720	458.530	513.815	421.530	0.689
	95% CI ^a	0.610-0.883	0.547-0.842	0.513-0.827	0.705-0.936	0.541-0.838	0.487-0.795	0.868-0.997
MDD vs HCs	Sensitivity	0.760	0.480	0.920	0.800	0.520	0.480	0.680
	Specificity	0.560	0.800	0.400	0.600	0.760	0.840	0.880
	AUC	0.666	0.635	0.642	0.699	0.664	0.623	0.763
	Cutoff	2862.285	6.185	13616.925	390.840	636.520	645.865	0.552
	95% CI ^a	0.515-0.818	0.478-0.792	0.486-0.798	0.552-0.846	0.514-0.814	0.464-0.782	0.624-0.903
MDD vs BM	Sensitivity	0.727	0.818	0.773	0.955	0.909	1.000	0.773
	Specificity	0.360	0.600	0.360	0.200	0.320	0.040	0.760

MDD vs BD	AUC	0.400	0.732	0.533	0.395	0.531	0.366	0.780
	Cutoff	1815.930	5.085	13144.110	291.560	447.555	5.865	0.544
	95% CI ^a	0.235-0.565	0.588-0.876	0.365-0.700	0.230-0.559	0.362-0.700	0.207-0.526	0.645-0.915
	Sensitivity	1.000	0.316	0.263	0.000	0.947	1.000	0.895
	Specificity	0.040	0.800	0.960	1.000	0.200	0.080	0.800
MDD vs PD	AUC	0.377	0.512	0.621	0.298	0.393	0.440	0.893
	Cutoff	593.175	6.165	21088.095	11173.170	405.835	17.870	0.419
	95% CI ^a	0.211-0.542	0.336-0.687	0.452-0.790	0.144-0.452	0.224-0.561	0.269-0.611	0.795-0.990
	Sensitivity	0.833	0.833	0.542	0.792	0.750	0.417	0.750
	Specificity	0.360	0.600	0.800	0.560	0.520	0.720	0.840
BM vs HCs	AUC	0.532	0.747	0.658	0.698	0.607	0.485	0.825
	Cutoff	1839.030	5.125	18035.535	407.860	521.180	264.780	0.566
	95% CI ^a	0.366-0.698	0.608-0.885	0.501-0.816	0.551-0.845	0.446-0.767	0.318-0.652	0.707-0.943
	Sensitivity	0.840	0.120	0.520	0.880	0.600	0.560	0.920
	Specificity	0.636	0.909	0.773	0.682	0.773	0.909	0.773
	AUC	0.813	0.434	0.609	0.813	0.643	0.719	0.909
	Cutoff	2357.310	9.115	17687.880	410.290	607.075	264.780	0.372

	95% CI ^a	0.693-0.932	0.268-0.599	0.443-0.775	0.689-0.936	0.479-0.806	0.571-0.867	0.827-0.991
BM vs BD	Sensitivity	0.526	0.000	0.526	0.053	0.053	0.474	0.789
	Specificity	0.591	1.000	0.727	1.000	0.955	0.727	0.955
	AUC	0.464	0.267	0.590	0.353	0.285	0.591	0.935
	Cutoff	2191.830	4777.510	17603.985	1003.700	869.660	180.000	0.721
	95% CI ^a	0.282-0.646	0.109-0.424	0.411-0.769	0.181-0.525	0.122-0.447	0.415-0.767	0.862-1.000
BM vs PD	Sensitivity	0.708	0.542	0.542	0.708	0.667	0.417	0.667
	Specificity	0.636	0.682	0.773	0.773	0.591	0.909	0.955
	AUC	0.650	0.533	0.614	0.808	0.596	0.606	0.871
	Cutoff	2352.855	7.100	17416.560	458.530	540.815	264.780	0.669
	95% CI ^a	0.489-0.810	0.364-0.703	0.447-0.780	0.685-0.931	0.428-0.763	0.440-0.772	0.770-0.972
BD vs HCs	Sensitivity	0.760	0.680	0.920	0.840	0.640	0.480	0.920
	Specificity	0.789	0.579	0.263	0.842	0.895	0.947	0.947
	AUC	0.815	0.636	0.514	0.886	0.753	0.672	0.975
	Cutoff	2746.785	5.420	13665.750	398.140	575.170	588.830	0.520
	95% CI ^a	0.688-0.941	0.470-0.801	0.326-0.701	0.785-0.987	0.607-0.899	0.512-0.832	0.937-1.000
BD vs PD	Sensitivity	0.625	0.917	0.542	0.708	0.750	0.417	0.958

	Specificity	0.789	0.526	0.684	0.947	0.789	0.789	0.895
	AUC	0.684	0.750	0.531	0.894	0.755	0.535	0.978
	Cutoff	2571.555	4.805	18037.950	461.330	521.180	264.780	0.482
	95% CI ^a	0.521-0.847	0.602-0.898	0.355-0.706	0.798-0.989	0.606-0.905	0.360-0.710	0.945-1.000
PD vs HCs	Sensitivity	0.720	0.000	0.920	0.600	0.320	0.480	0.640
	Specificity	0.583	1.000	0.333	0.542	0.917	0.833	0.917
	AUC	0.664	0.398	0.440	0.520	0.570	0.631	0.802
	Cutoff	2952.375	16.700	13649.475	507.510	940.830	658.200	0.592
	95% CI ^a	0.512-0.817	0.237-0.558	0.265-0.615	0.355-0.685	0.405-0.735	0.473-0.789	0.677-0.927

Notes: ×6: combination of tPA, PAI-1, BDNF, proBDNF, TrkB and p75NTR; ^a95% CI for AUC.

Abbreviations: AUC, area under the curve; SZ, schizophrenia; MDD, major depressive disorder; BM, bipolar mania; BD, bipolar depression; PD, panic disorder; HCs, healthy controls; BMI, body mass index; SAPS, Scale for Assessment Positive Symptom; HARS, Hamilton Anxiety Rating Scale; HDRS, 17-item Hamilton Depression Rating Scale; YMRS, Young Mania Rating Scale; PDSS, Panic Disorder Severity Scale; tPA, tissue plasminogen activator; PAI-1, plasminogen activator inhibitor-1; BDNF, brain-derived neurotrophic factor; pro-BDNF, precursor-BDNF; TrkB, tropomyosin-related kinase B; p75NTR, neurotrophin receptor p75.