Complete Simulation Results
Selection of Regression Models under Linear Restrictions for Fixed and Random Designs

Sen Tian, Clifford M. Hurvich, Jeffrey S. Simonoff

- Variable selection
  - Fixed-X
    - Sparse-Ex1: Figure S1-S27
    - Sparse-Ex2: Figure S28-S54
    - Dense-Ex1: Figure S55-S81
  - Random-X
    - Sparse-Ex1: Figure S82-S108
    - Sparse-Ex2: Figure S109-S135
    - Dense-Ex1: Figure S136-S162
- General restriction
  - Fixed-X
    - Ex1: Figure S163-S180
    - Ex2: Figure S181-S198
    - Ex3: Figure S199-S216
  - Random-X
    - Ex1: Figure S217-S234
    - Ex2: Figure S235-S252
    - Ex3: Figure S253-S270

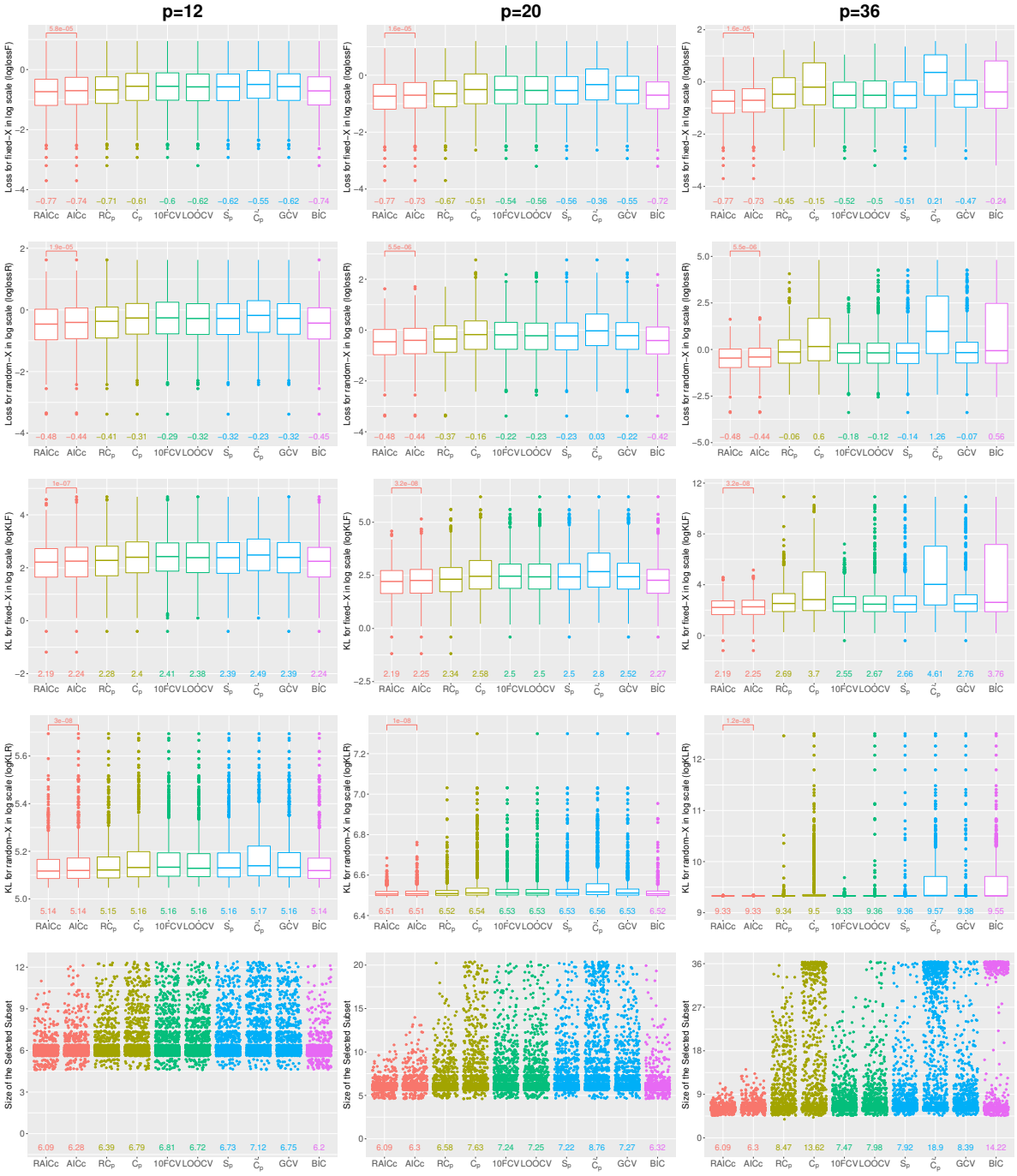

Figure S1: Variable selection, Fixed-X, Sparse-Ex1, $n = 40$, high signal, and $\rho = 0$.

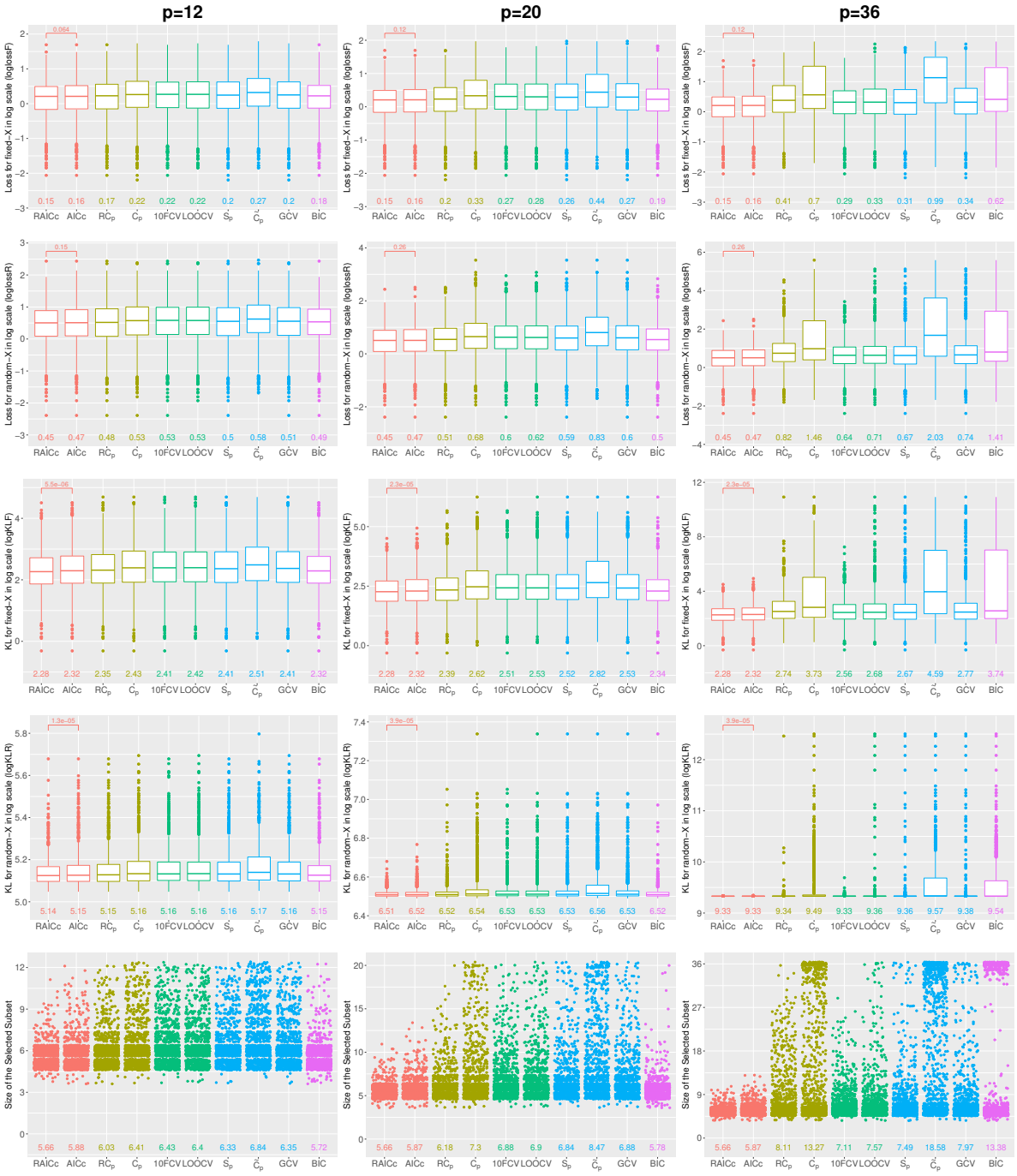

Figure S2: Variable selection, Fixed-X, Sparse-Ex1, $n = 40$, high signal, and $\rho = 0.5$.

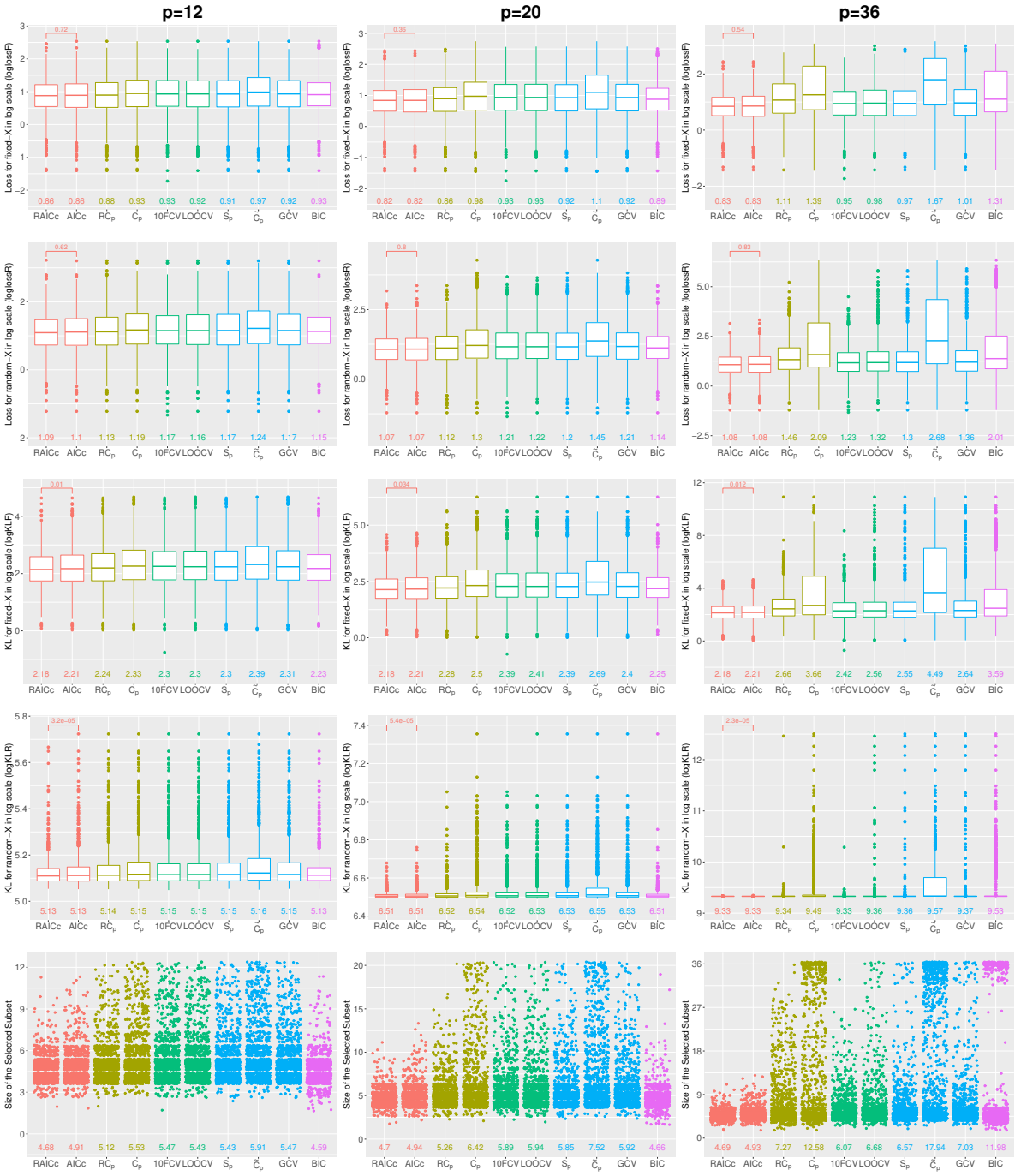

Figure S3: Variable selection, Fixed-X, Sparse-Ex1, $n = 40$, high signal, and $\rho = 0.9$.

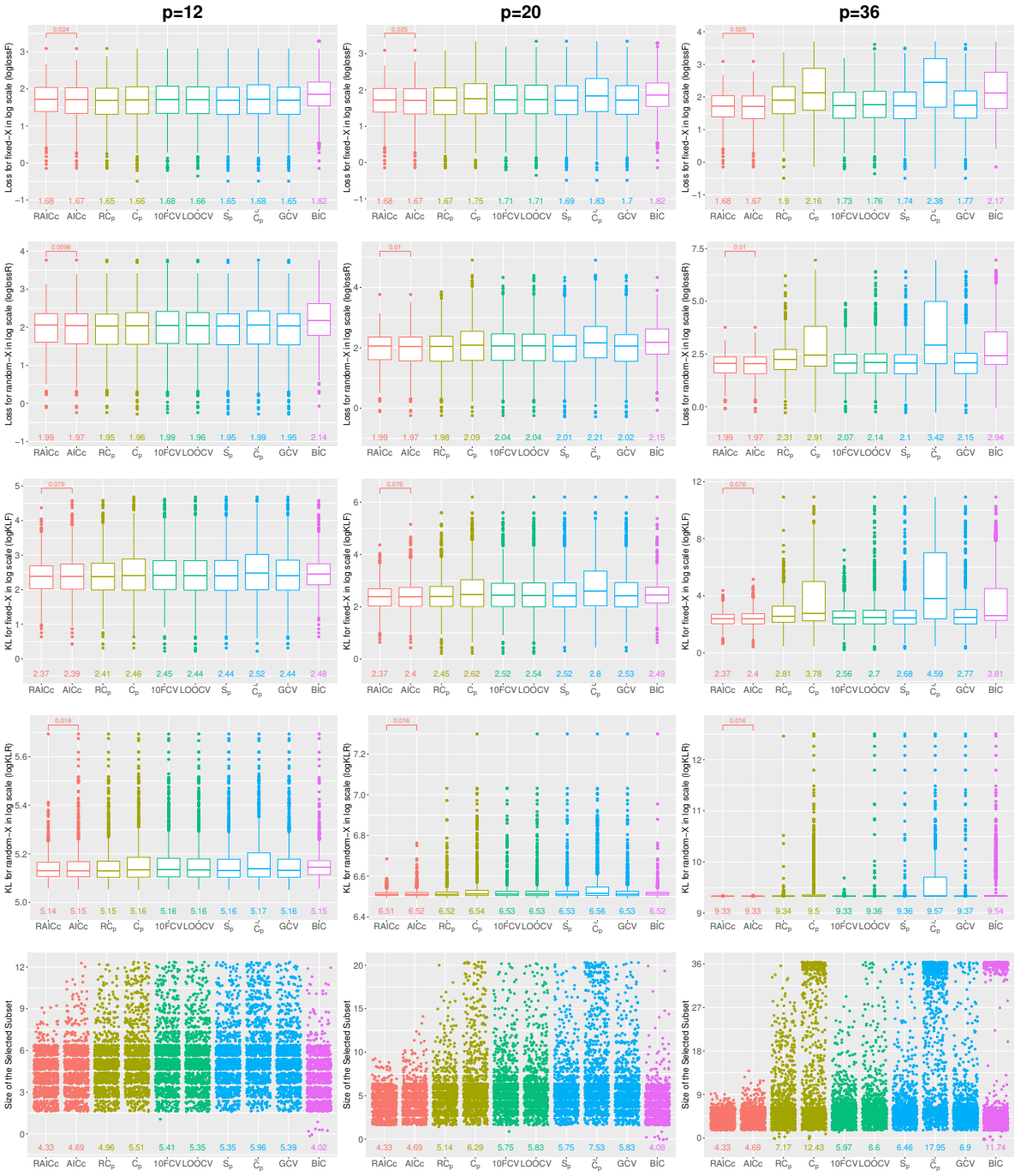

Figure S4: Variable selection, Fixed-X, Sparse-Ex1, $n = 40$, medium signal, and $\rho = 0$.

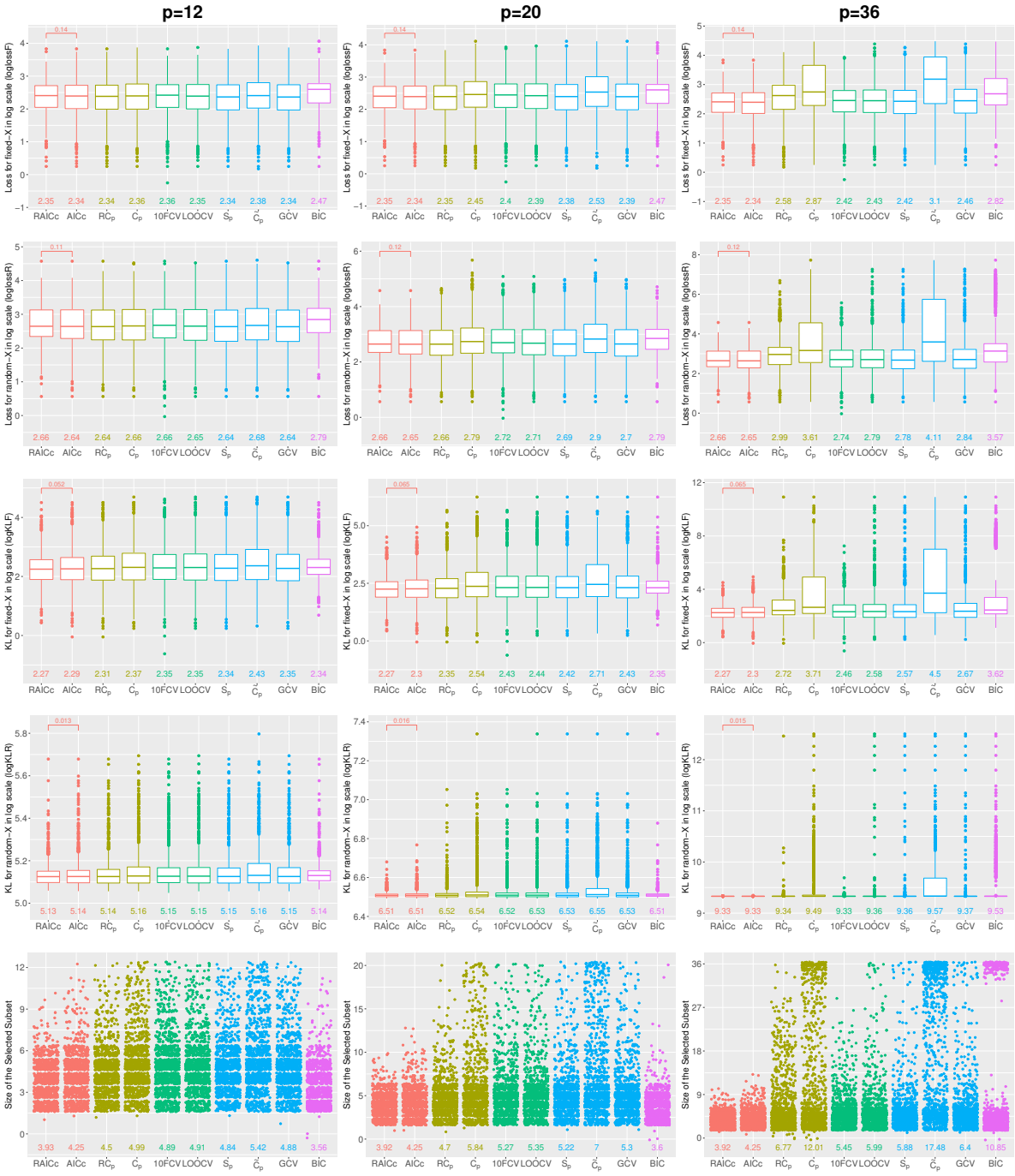

Figure S5: Variable selection, Fixed-X, Sparse-Ex1, $n = 40$, medium signal, and $\rho = 0.5$.

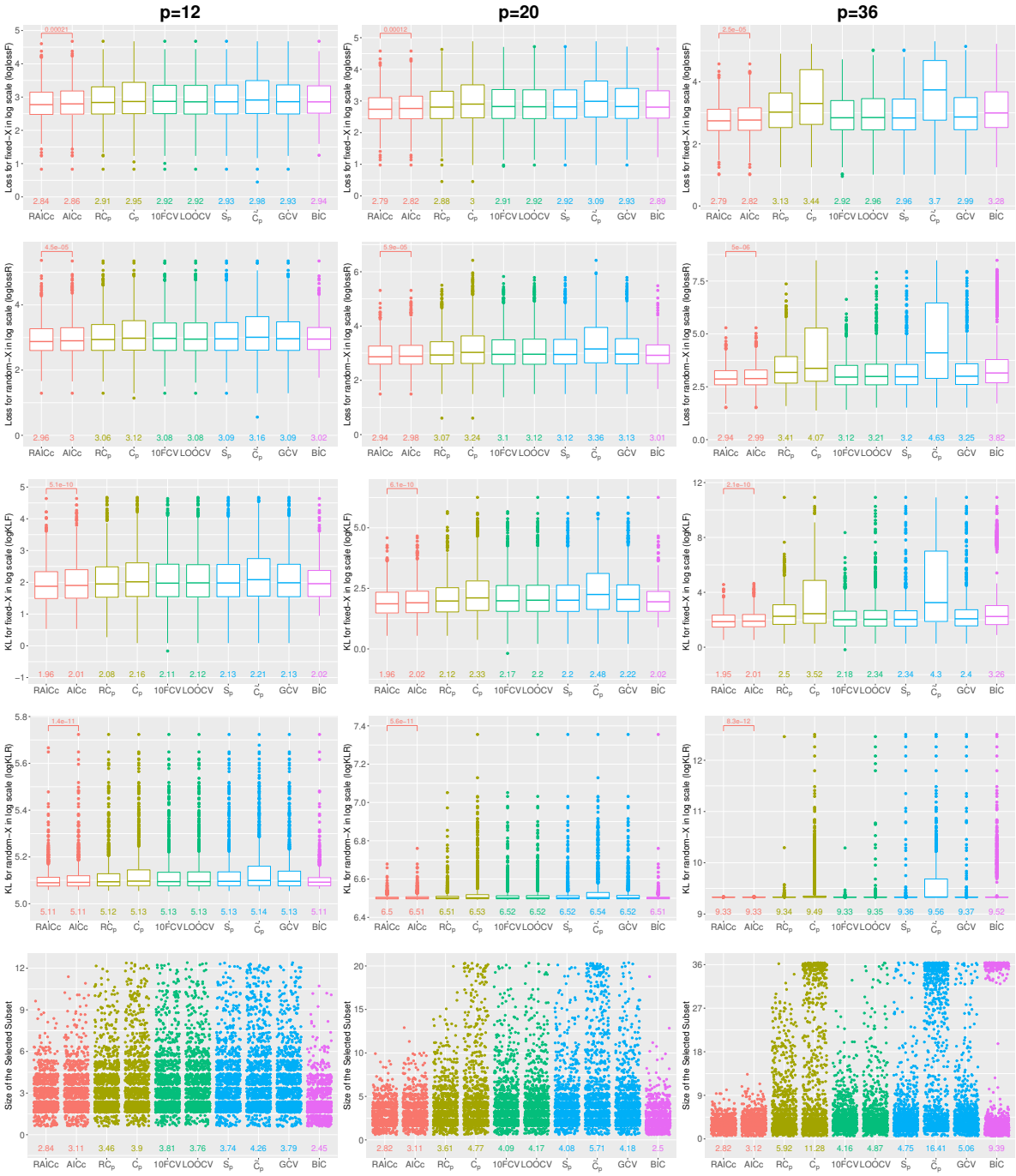

Figure S6: Variable selection, Fixed-X, Sparse-Ex1, $n = 40$, medium signal, and $\rho = 0.9$.

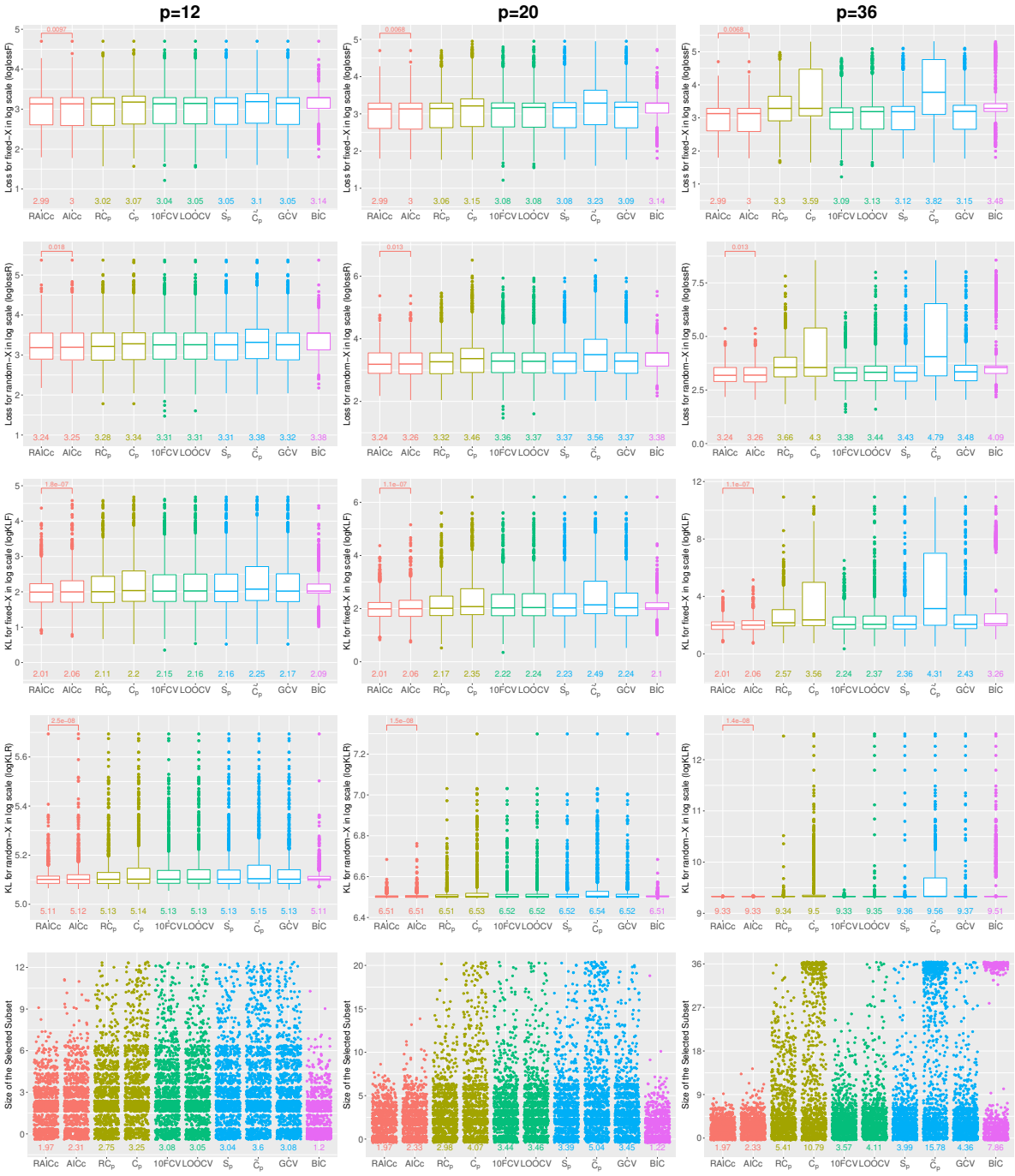

Figure S7: Variable selection, Fixed-X, Sparse-Ex1, $n = 40$, low signal, and $\rho = 0$.

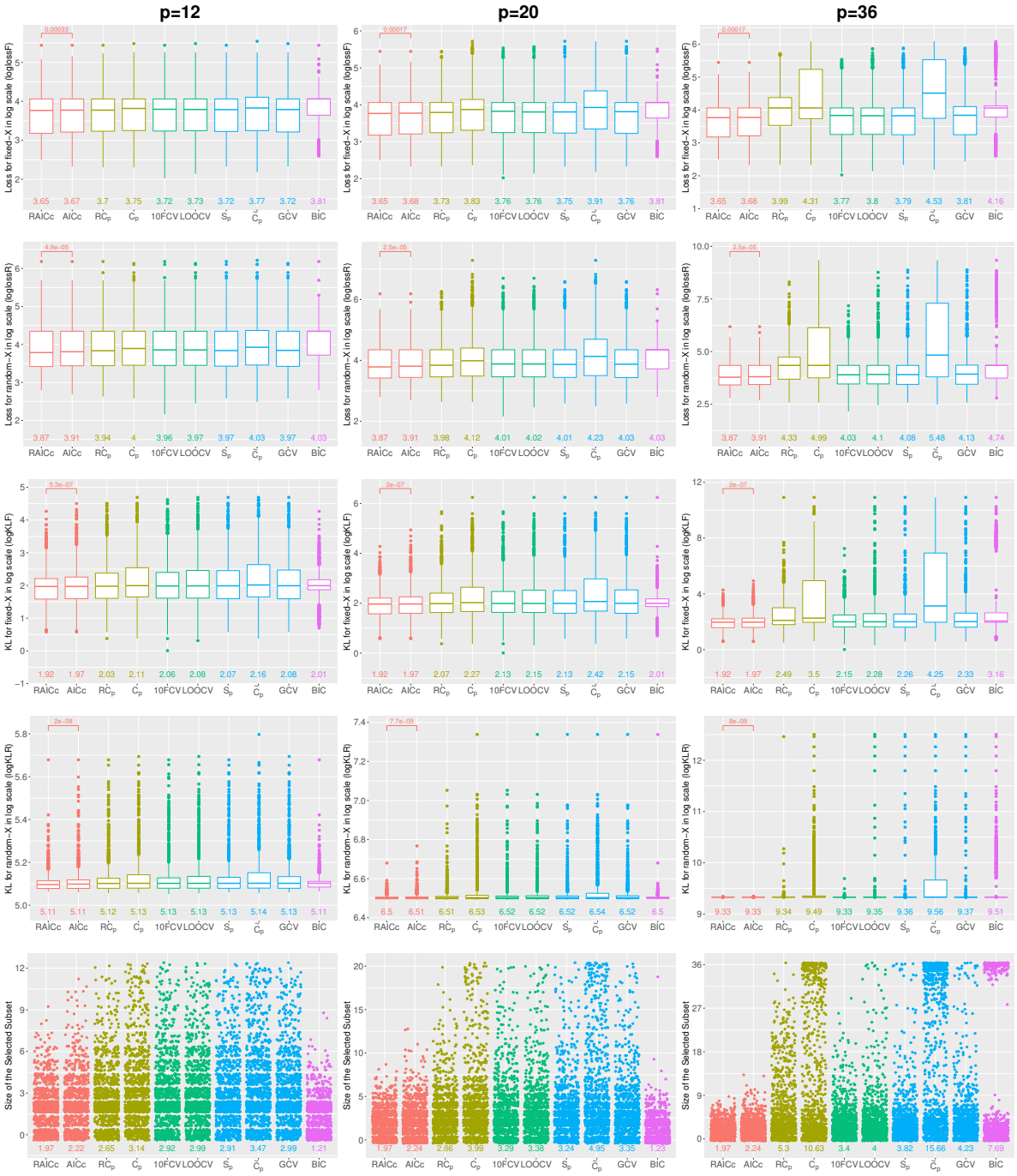

Figure S8: Variable selection, Fixed-X, Sparse-Ex1, $n = 40$, low signal, and $\rho = 0.5$.

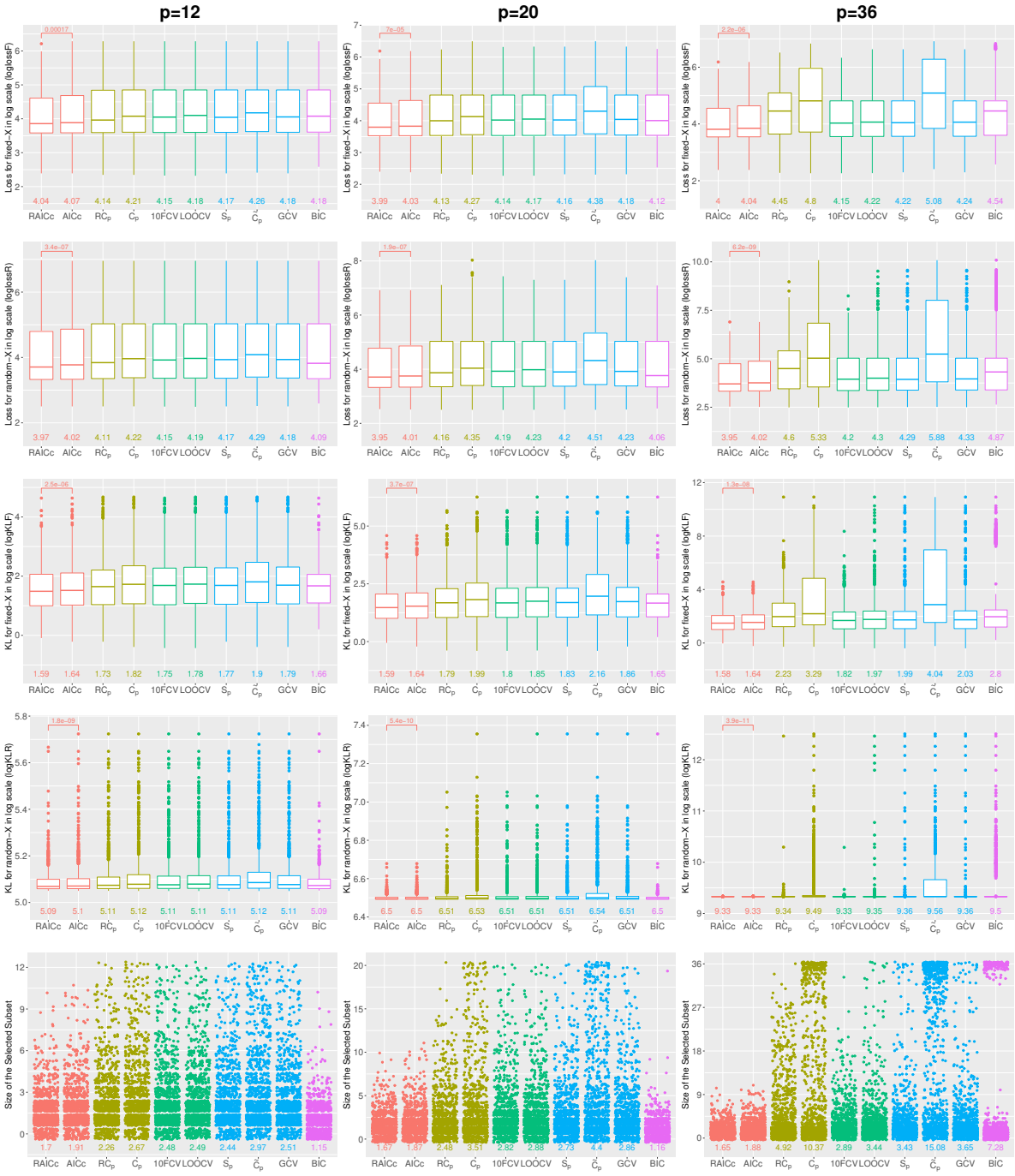

Figure S9: Variable selection, Fixed-X, Sparse-Ex1, $n = 40$, low signal, and $\rho = 0.9$.

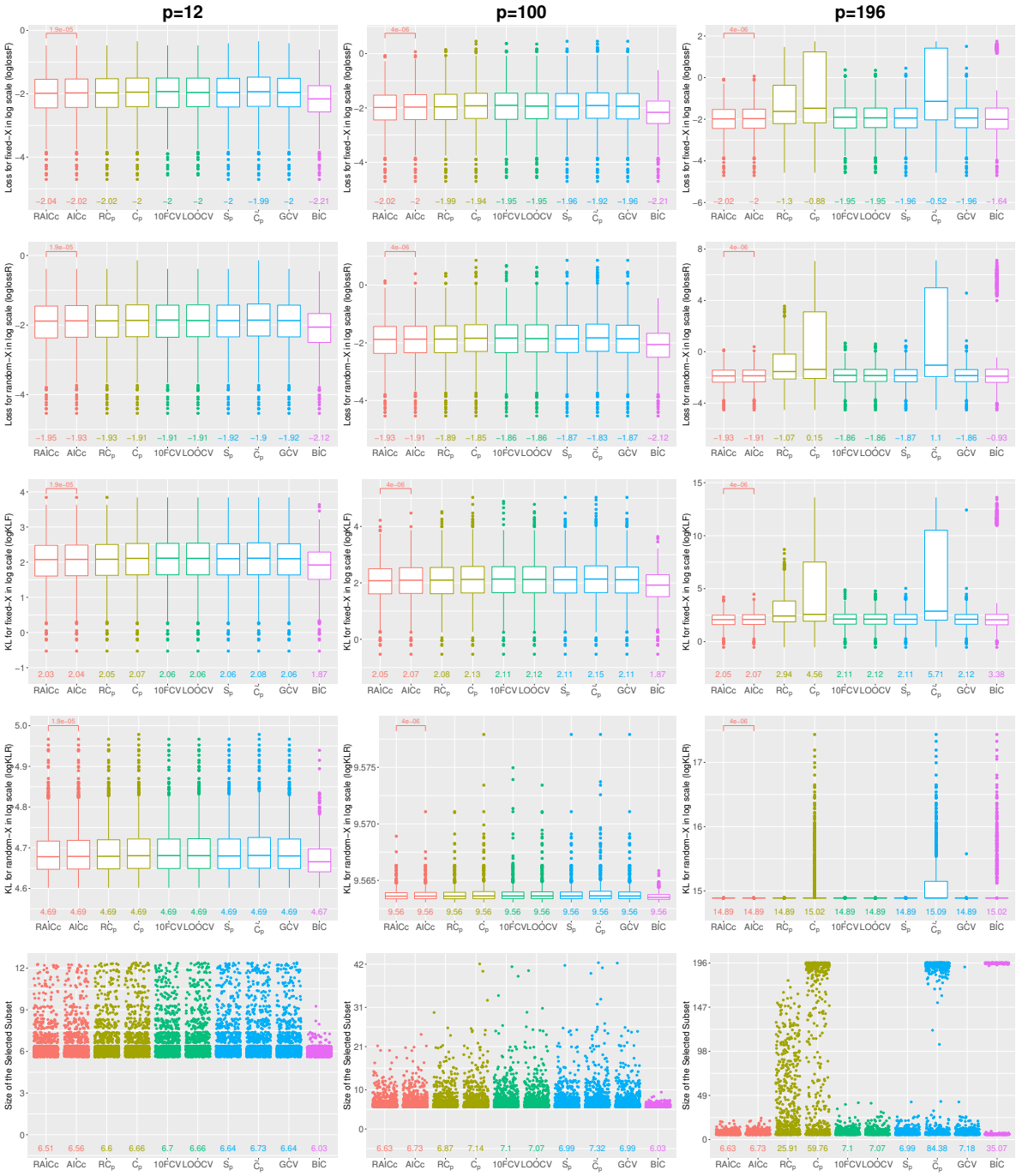

Figure S10: Variable selection, Fixed-X, Sparse-Ex1, $n = 200$, high signal, and $\rho = 0$.

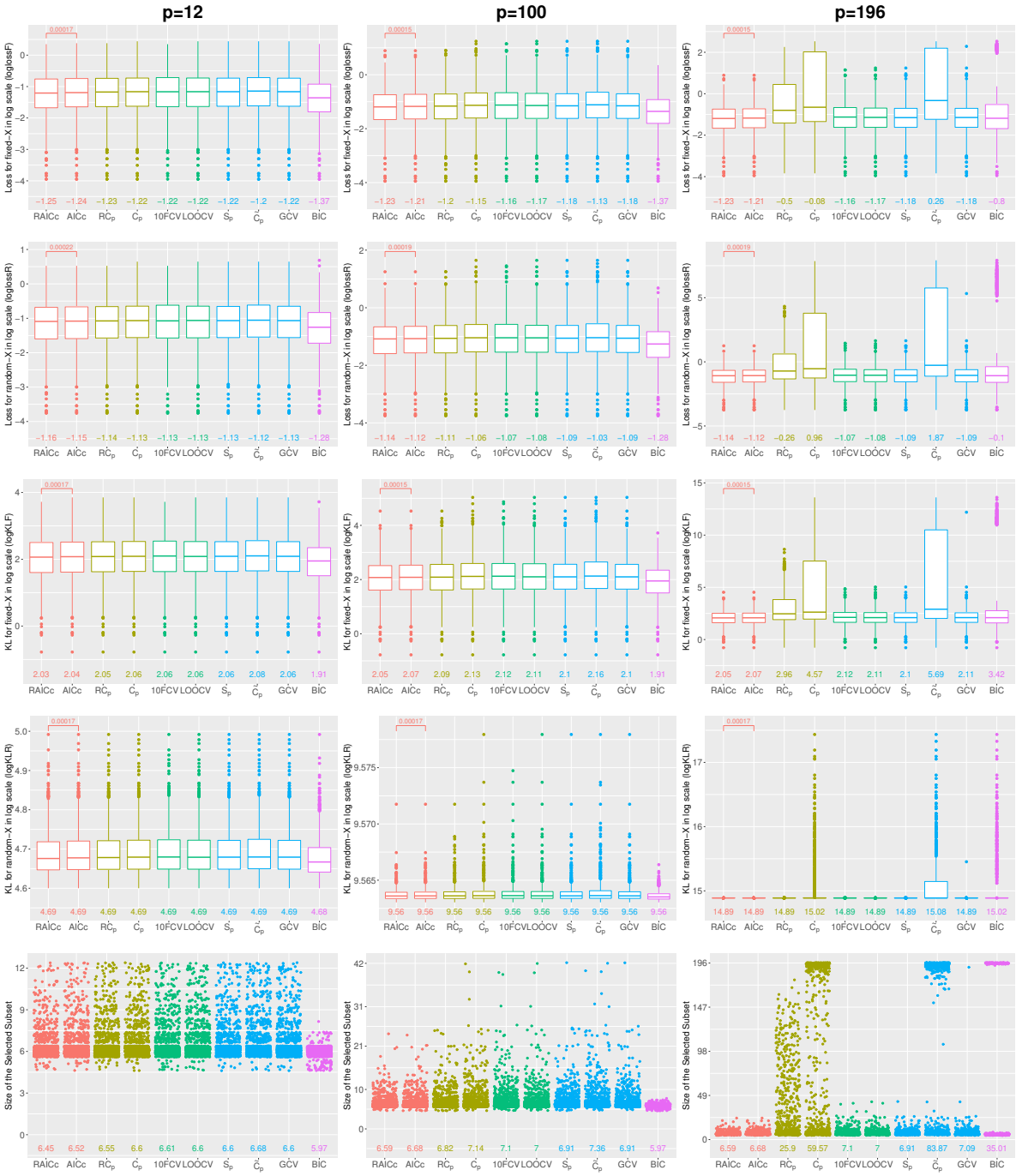

Figure S11: Variable selection, Fixed-X, Sparse-Ex1, $n = 200$, high signal, and $\rho = 0.5$.

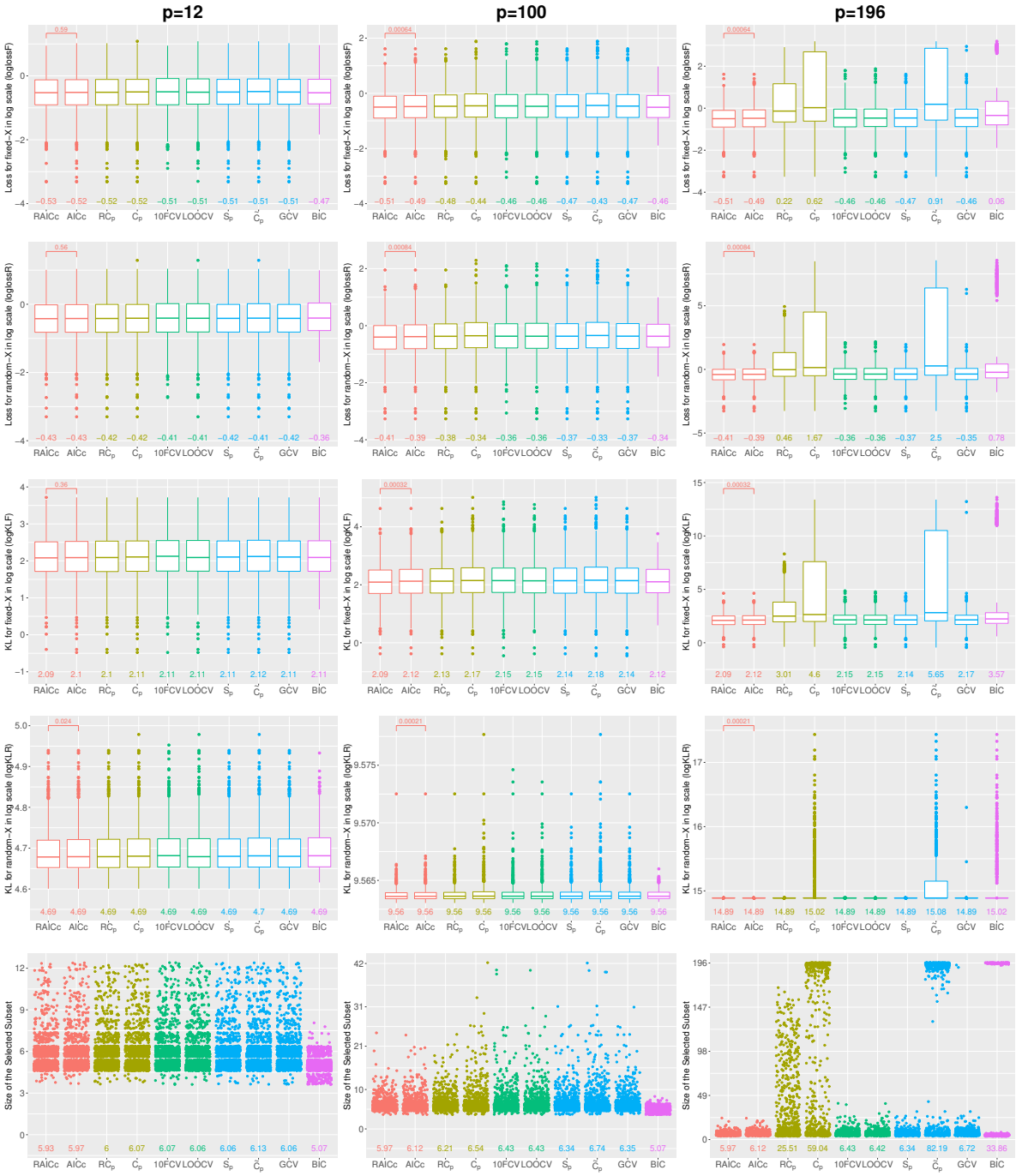

Figure S12: Variable selection, Fixed-X, Sparse-Ex1, $n = 200$, high signal, and $\rho = 0.9$.

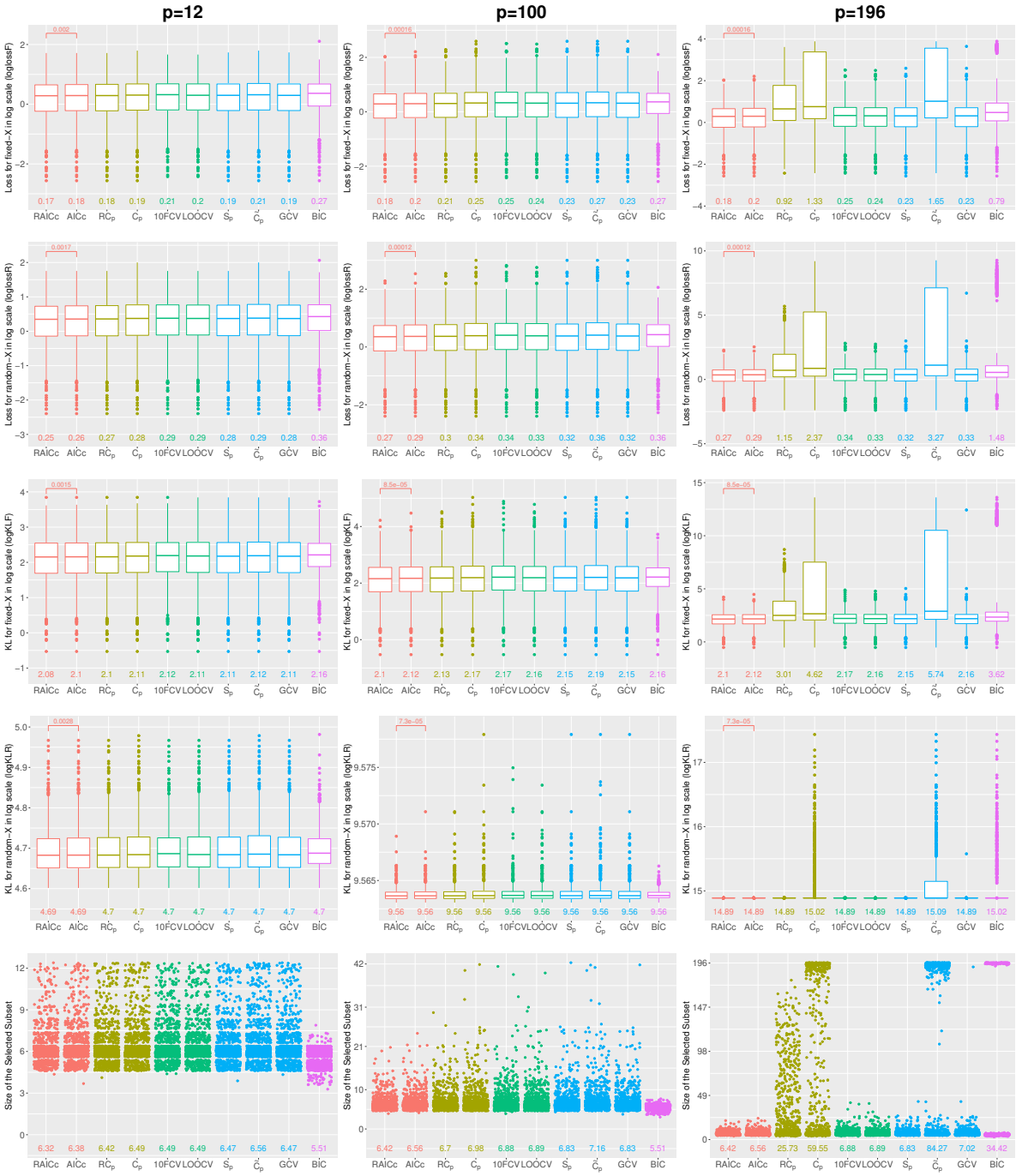

Figure S13: Variable selection, Fixed-X, Sparse-Ex1, $n = 200$, medium signal, and $\rho = 0$.

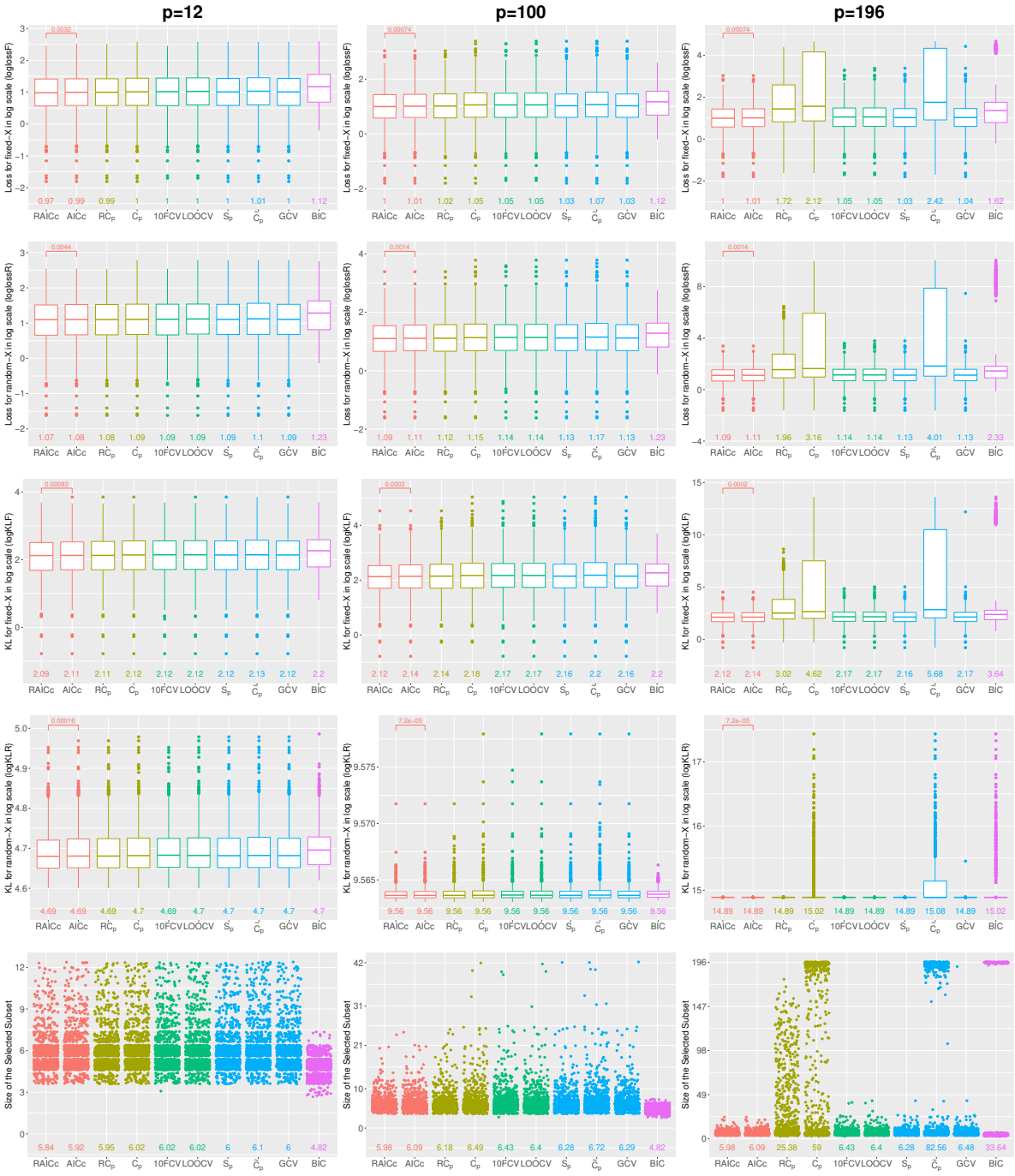

Figure S14: Variable selection, Fixed-X, Sparse-Ex1, $n = 200$, medium signal, and $\rho = 0.5$.

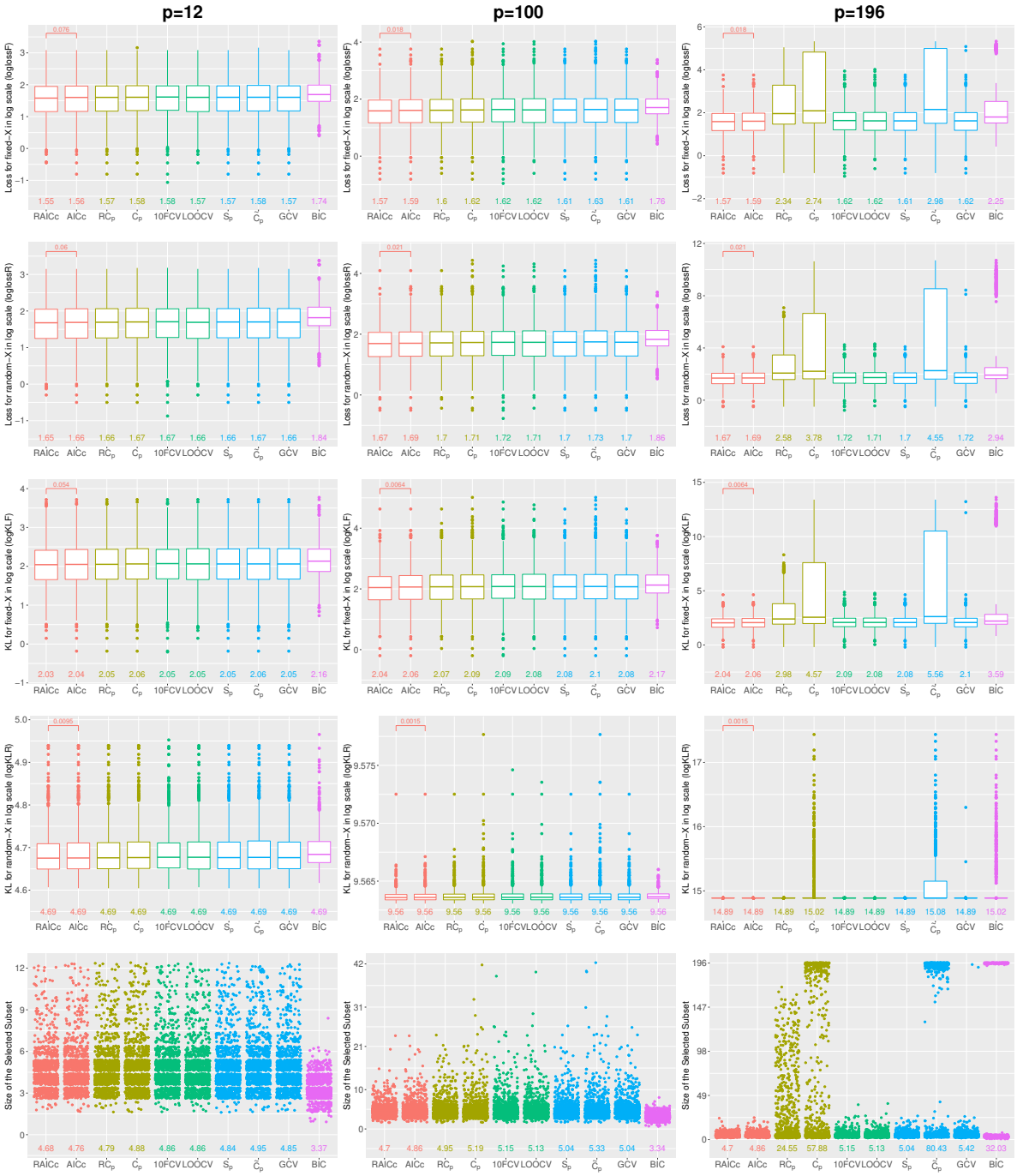

Figure S15: Variable selection, Fixed-X, Sparse-Ex1, $n = 200$, medium signal, and $\rho = 0.9$.

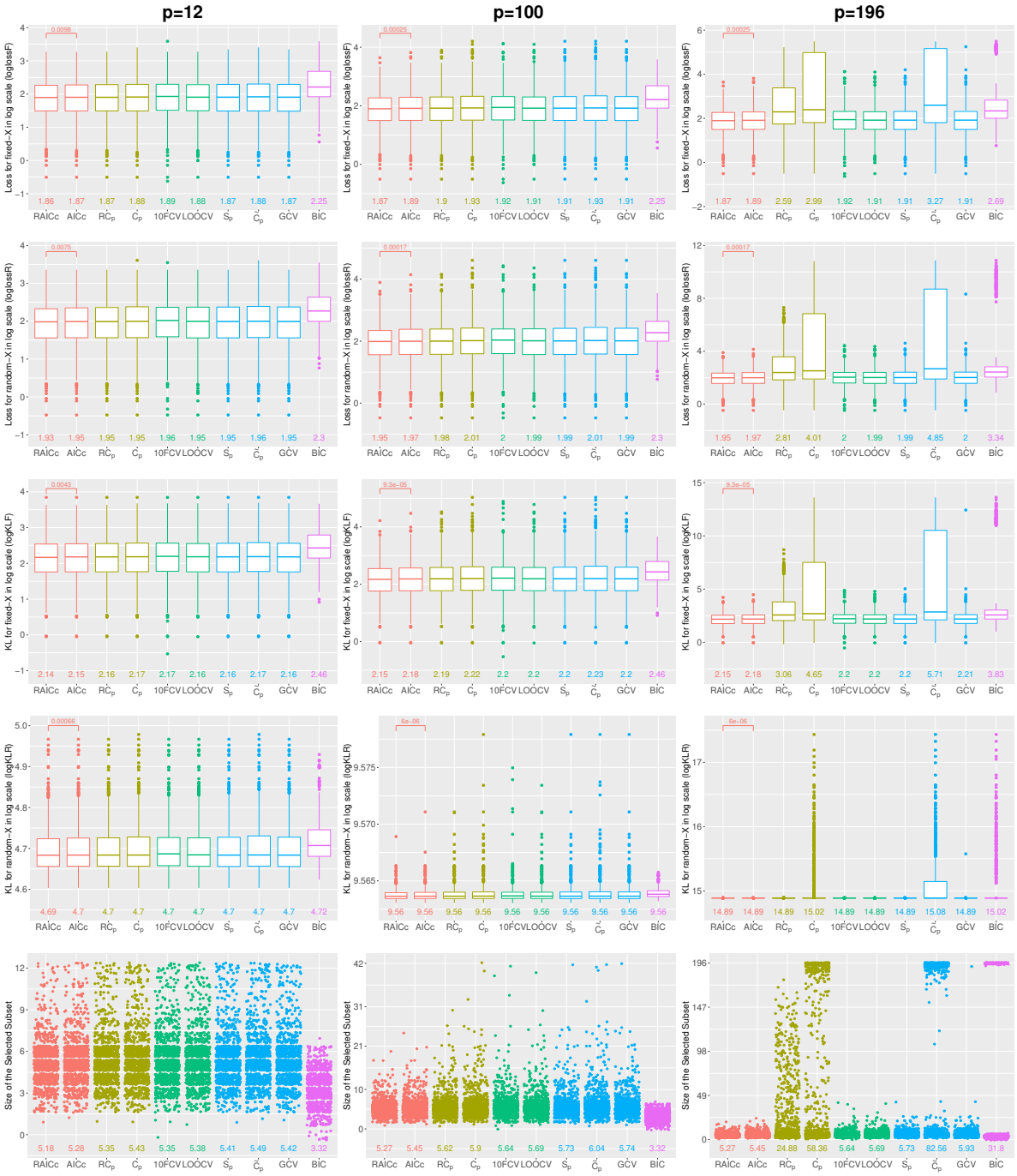

Figure S16: Variable selection, Fixed-X, Sparse-Ex1, $n = 200$, low signal, and $\rho = 0$.

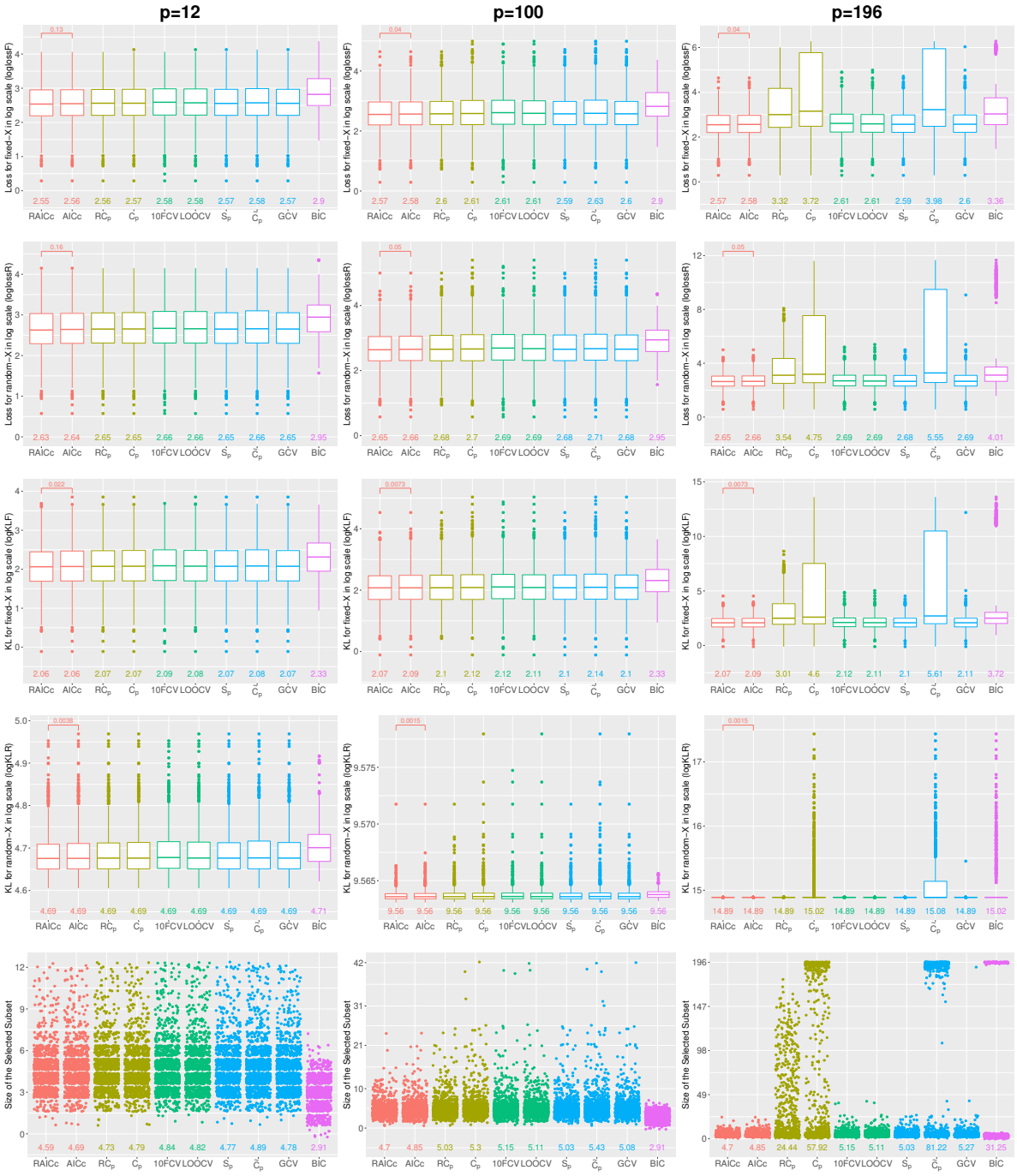

Figure S17: Variable selection, Fixed-X, Sparse-Ex1, $n = 200$, low signal, and $\rho = 0.5$.

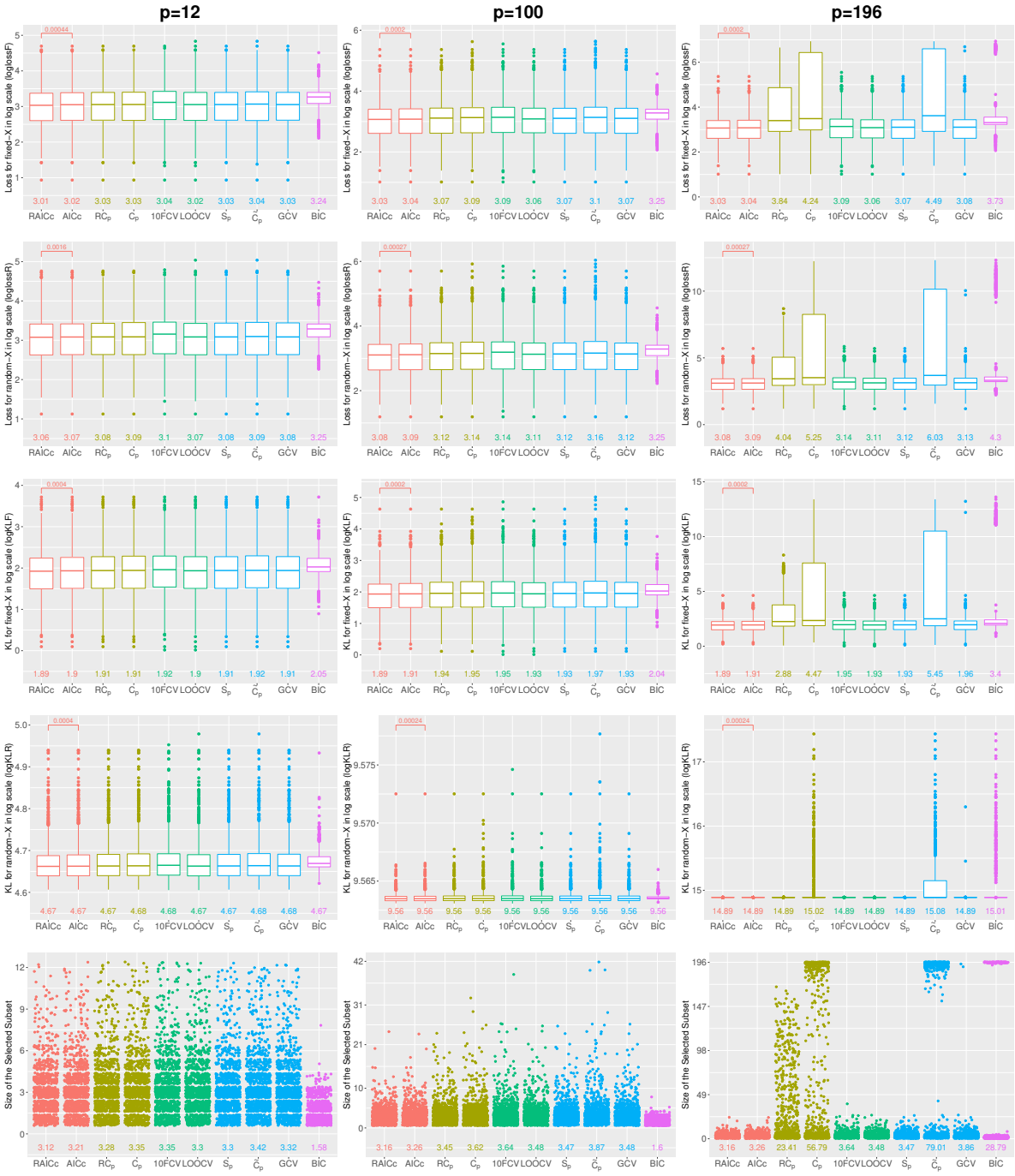

Figure S18: Variable selection, Fixed-X, Sparse-Ex1, $n = 200$, low signal, and $\rho = 0.9$.

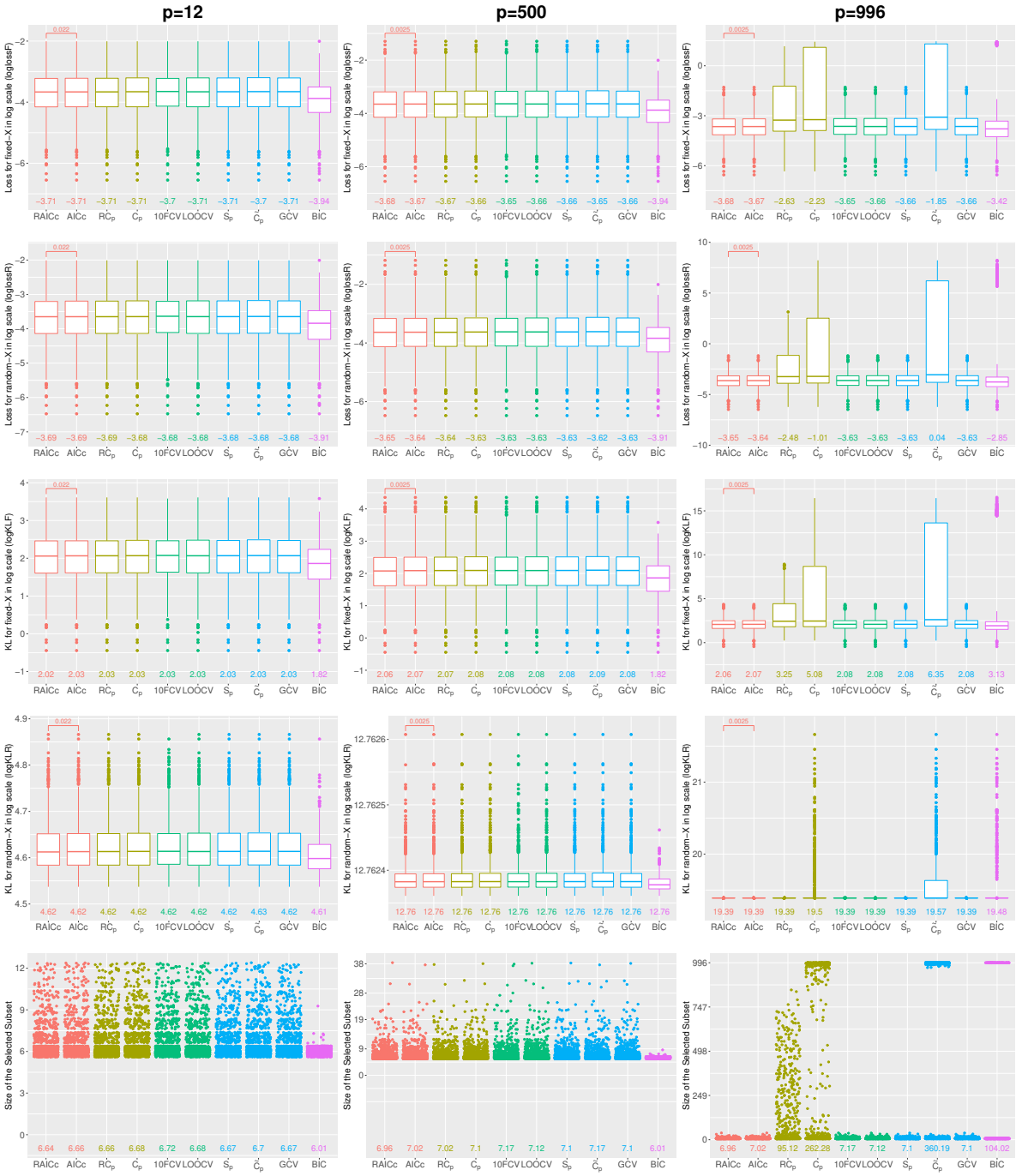

Figure S19: Variable selection, Fixed-X, Sparse-Ex1, $n = 1000$, high signal, and $\rho = 0$.

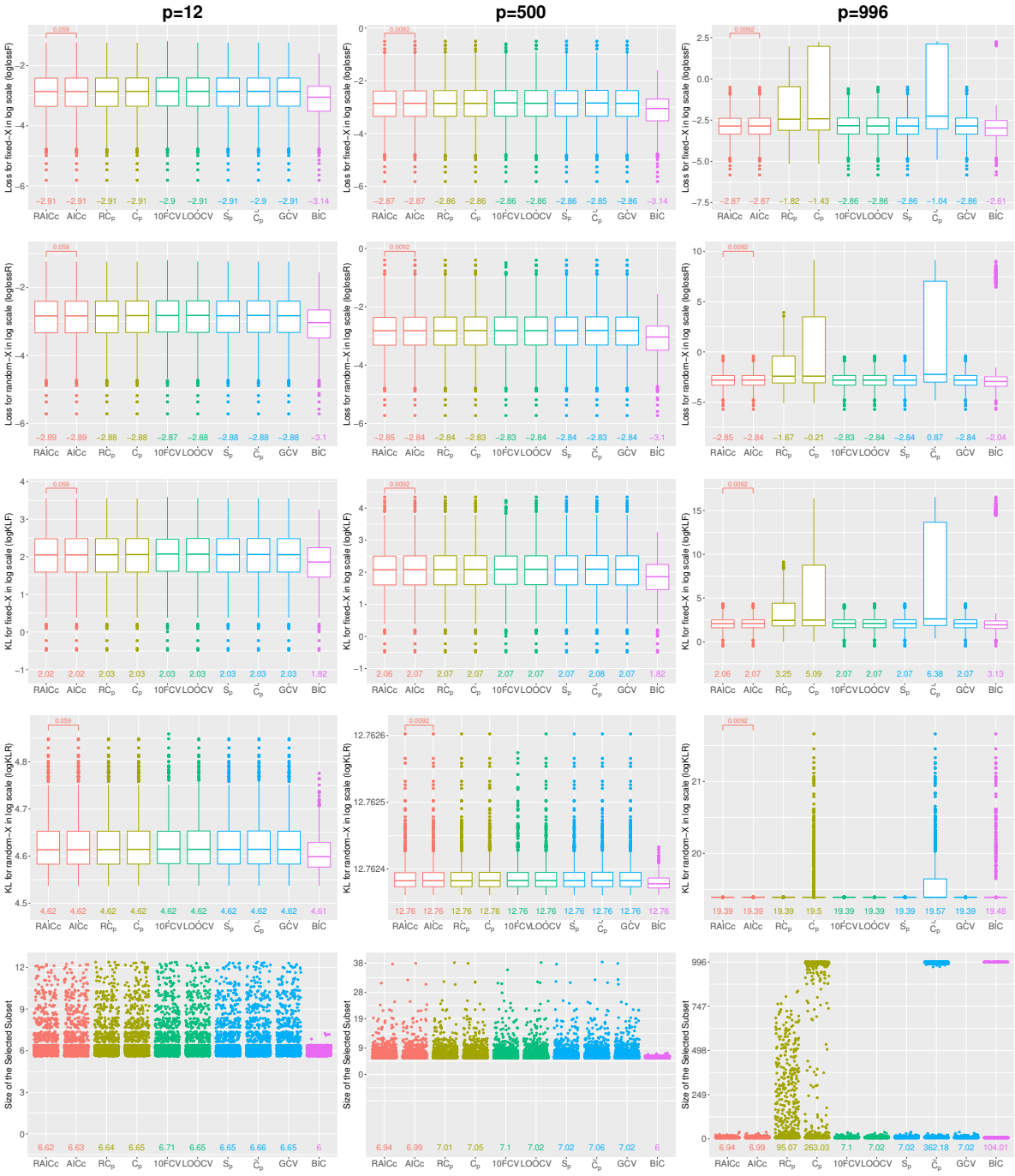

Figure S20: Variable selection, Fixed-X, Sparse-Ex1, $n = 1000$, high signal, and $\rho = 0.5$.

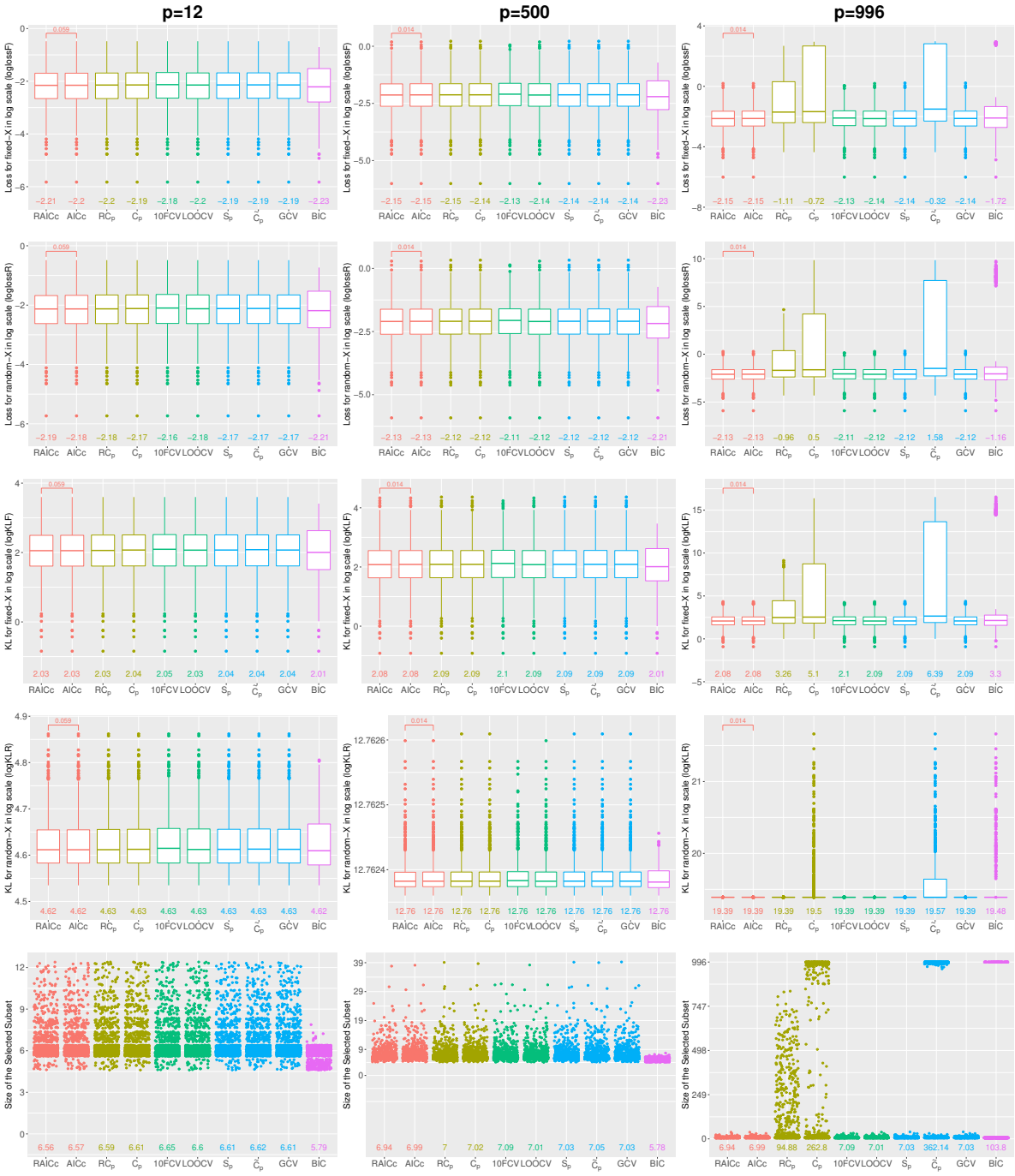

Figure S21: Variable selection, Fixed-X, Sparse-Ex1, $n = 1000$, high signal, and $\rho = 0.9$.

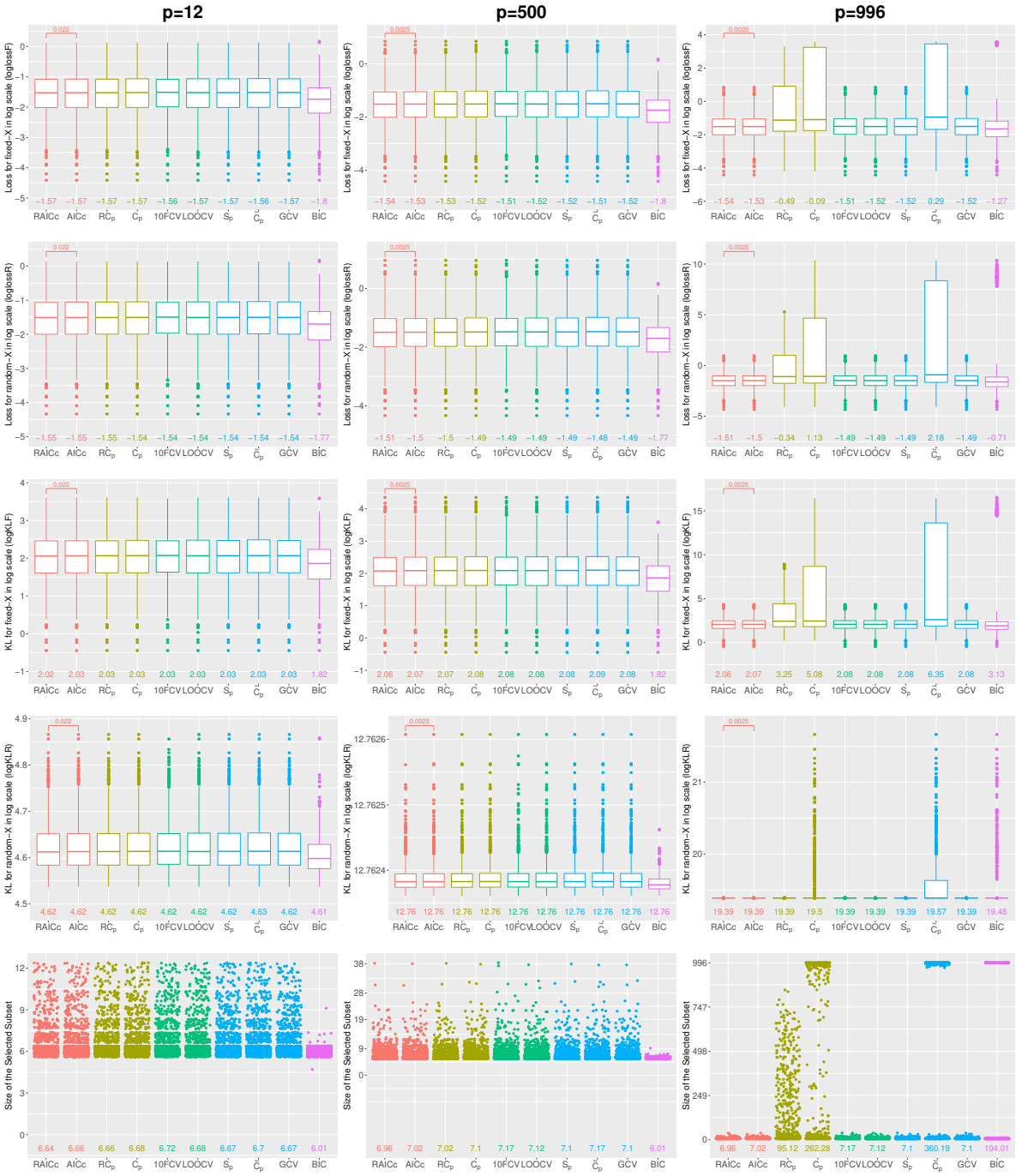

Figure S22: Variable selection, Fixed-X, Sparse-Ex1, $n = 1000$, medium signal, and $\rho = 0$.

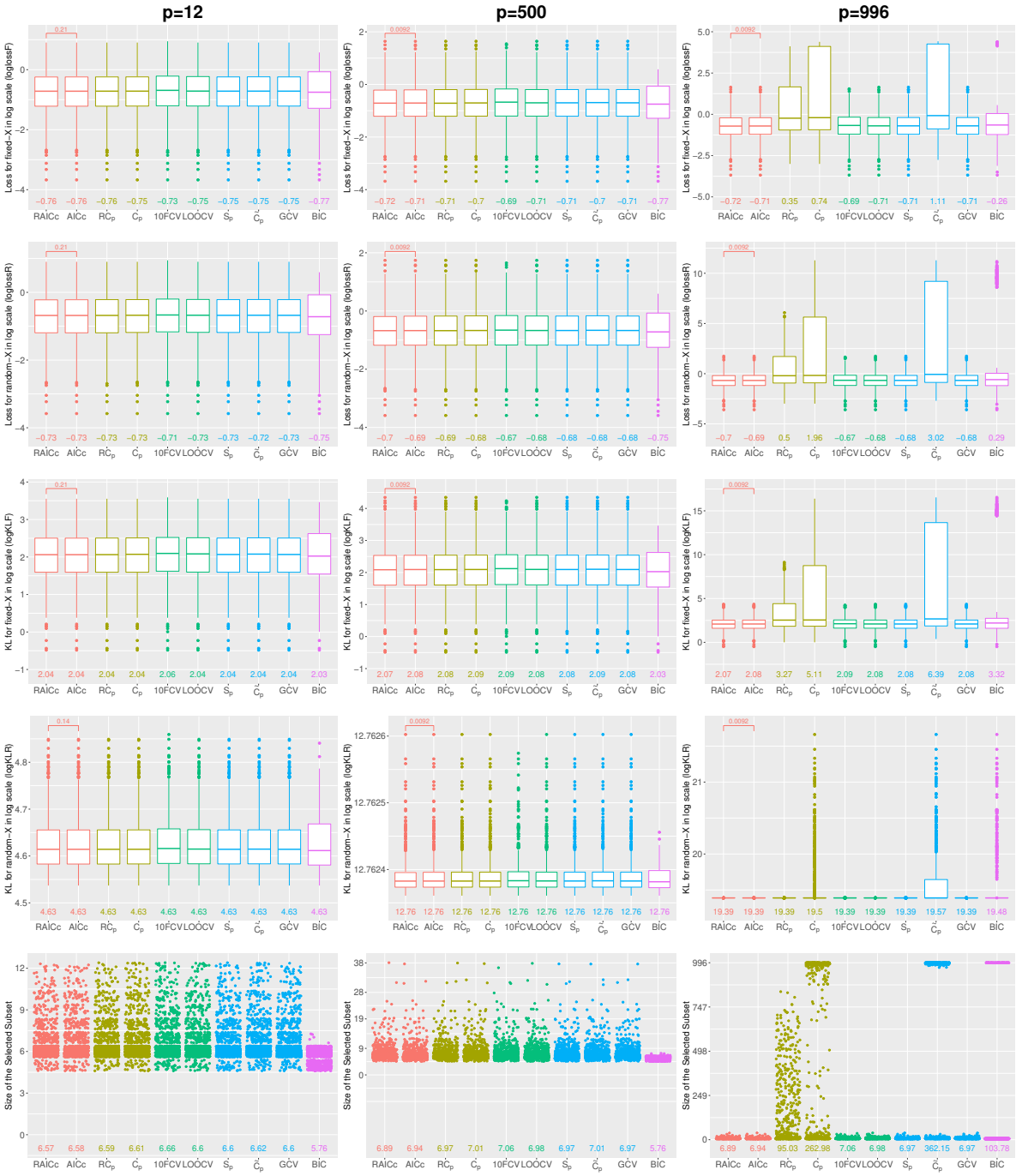

Figure S23: Variable selection, Fixed-X, Sparse-Ex1, $n = 1000$, medium signal, and $\rho = 0.5$.

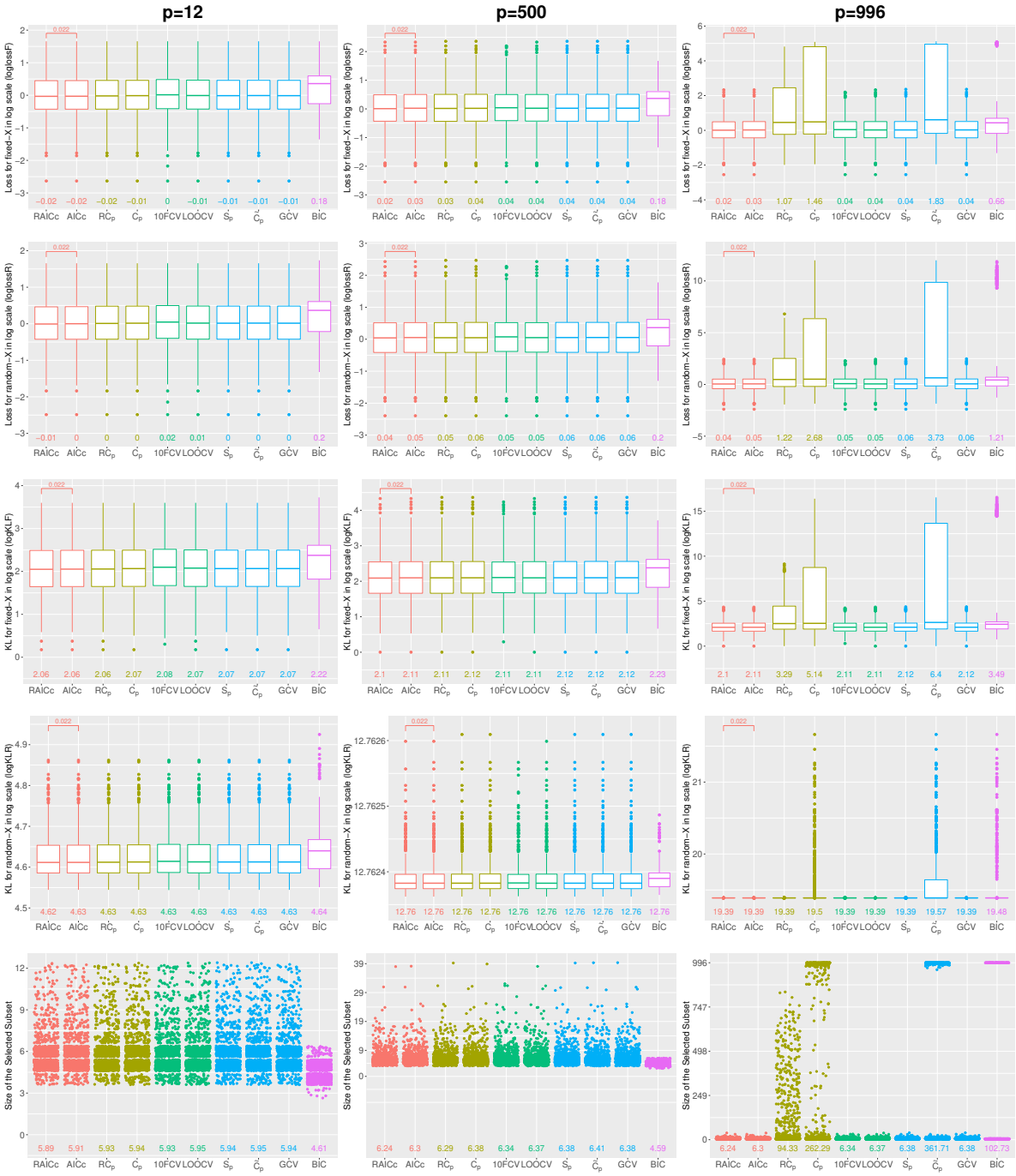

Figure S24: Variable selection, Fixed-X, Sparse-Ex1, $n = 1000$, medium signal, and $\rho = 0.9$.

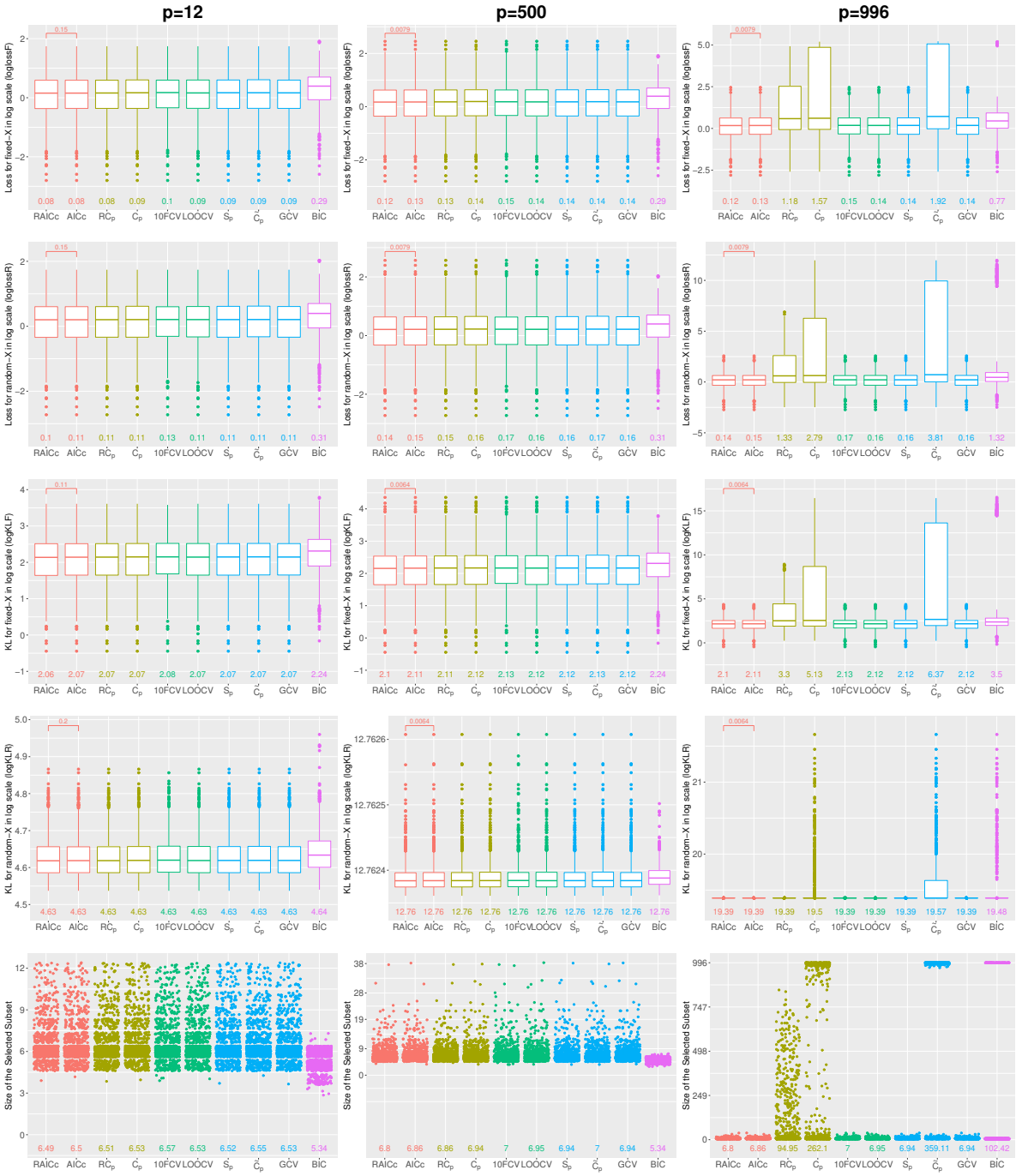

Figure S25: Variable selection, Fixed-X, Sparse-Ex1, $n = 1000$, low signal, and $\rho = 0$.

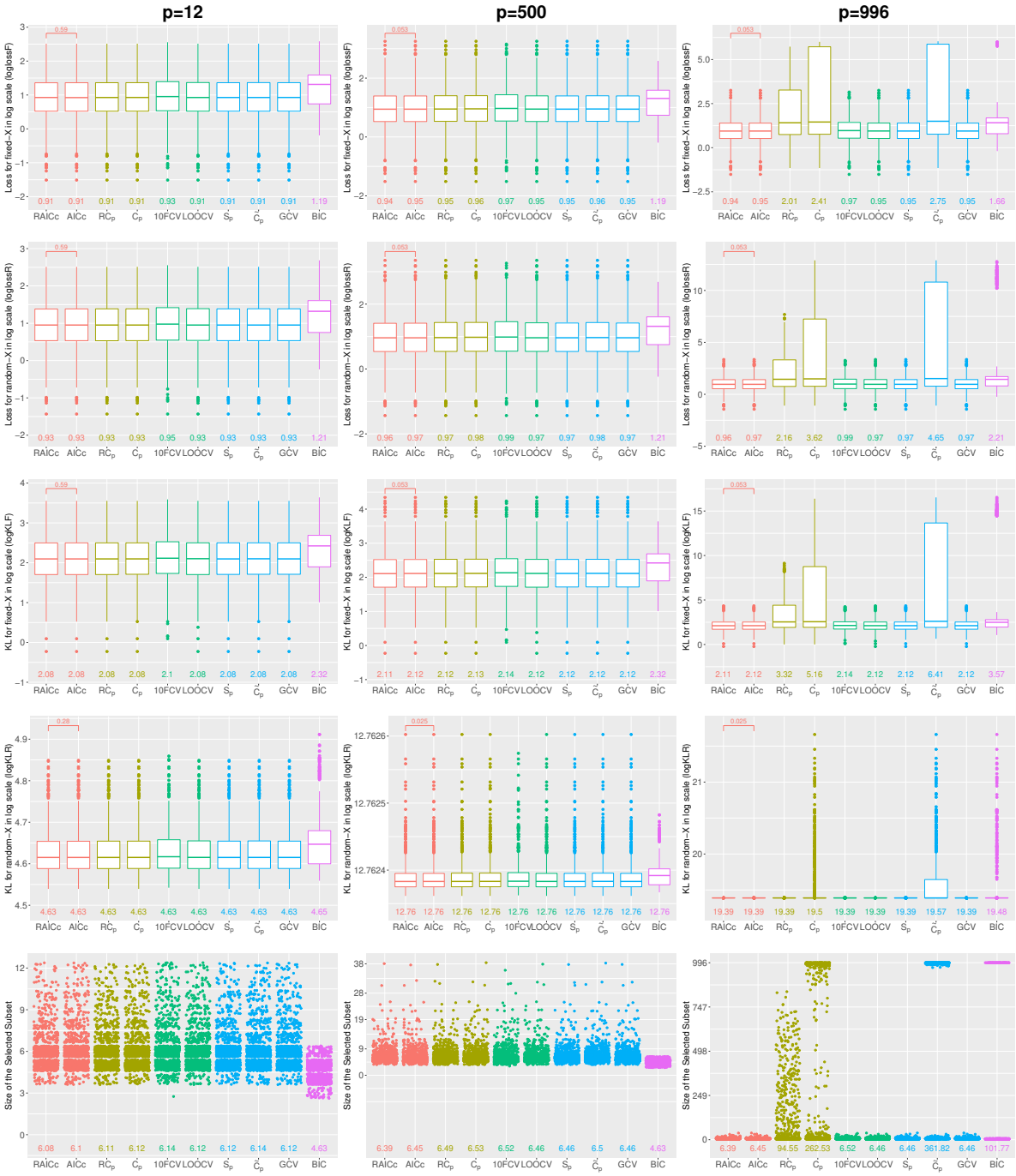

Figure S26: Variable selection, Fixed-X, Sparse-Ex1, $n = 1000$, low signal, and $\rho = 0.5$.

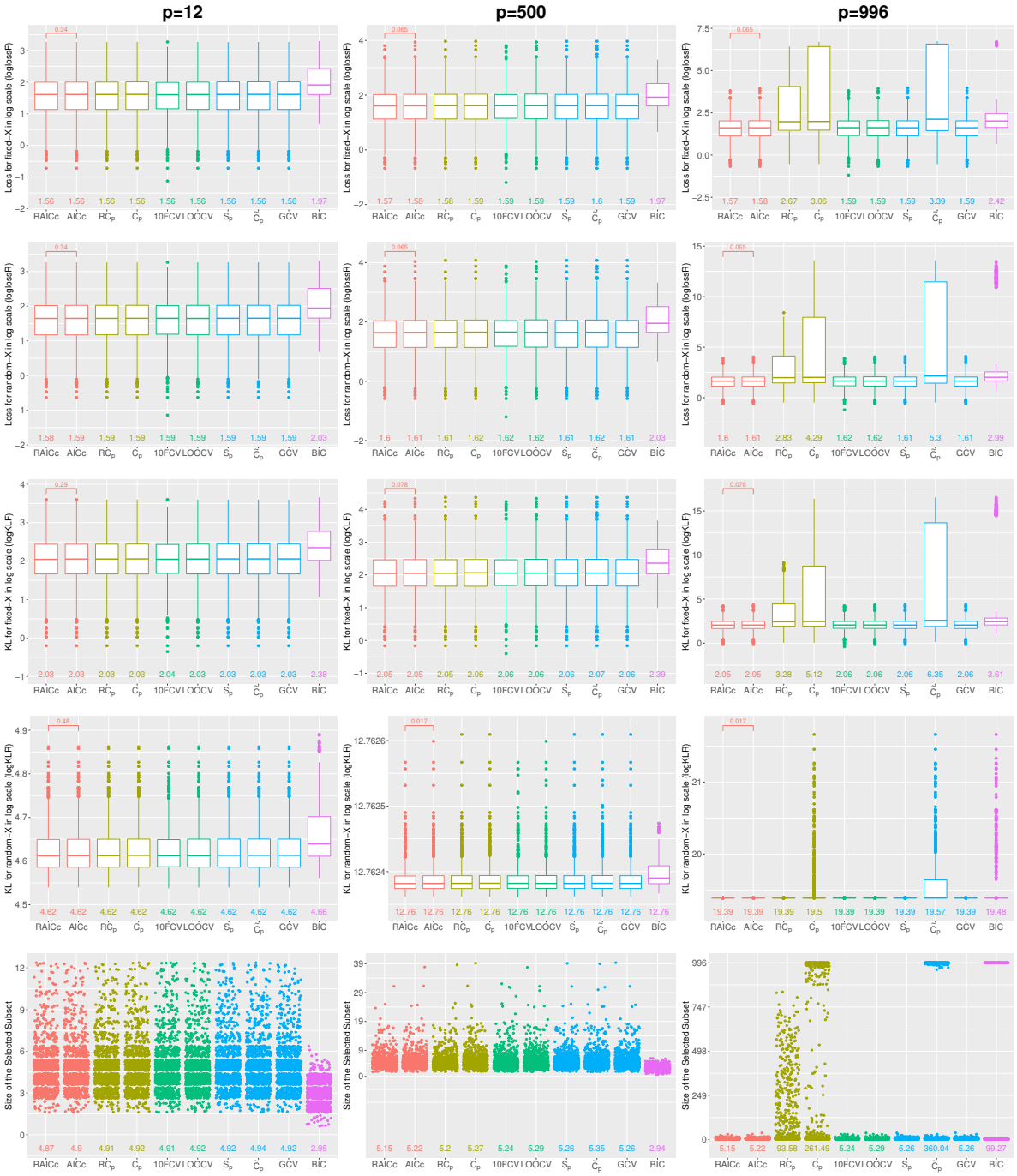

Figure S27: Variable selection, Fixed-X, Sparse-Ex1, $n = 1000$, low signal, and $\rho = 0.9$.

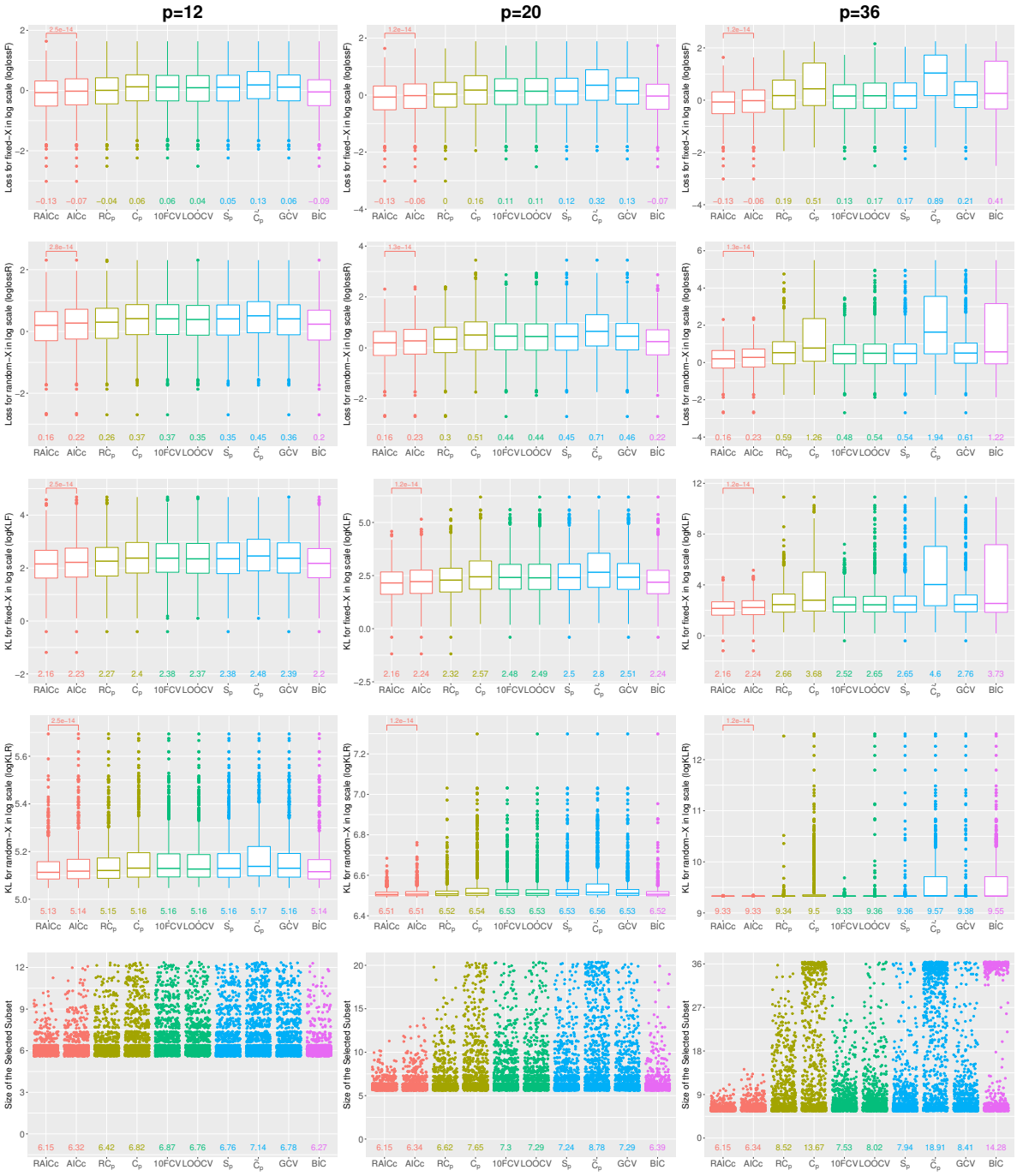

Figure S28: Variable selection, Fixed-X, Sparse-Ex2, $n = 40$, high signal, and $\rho = 0$.

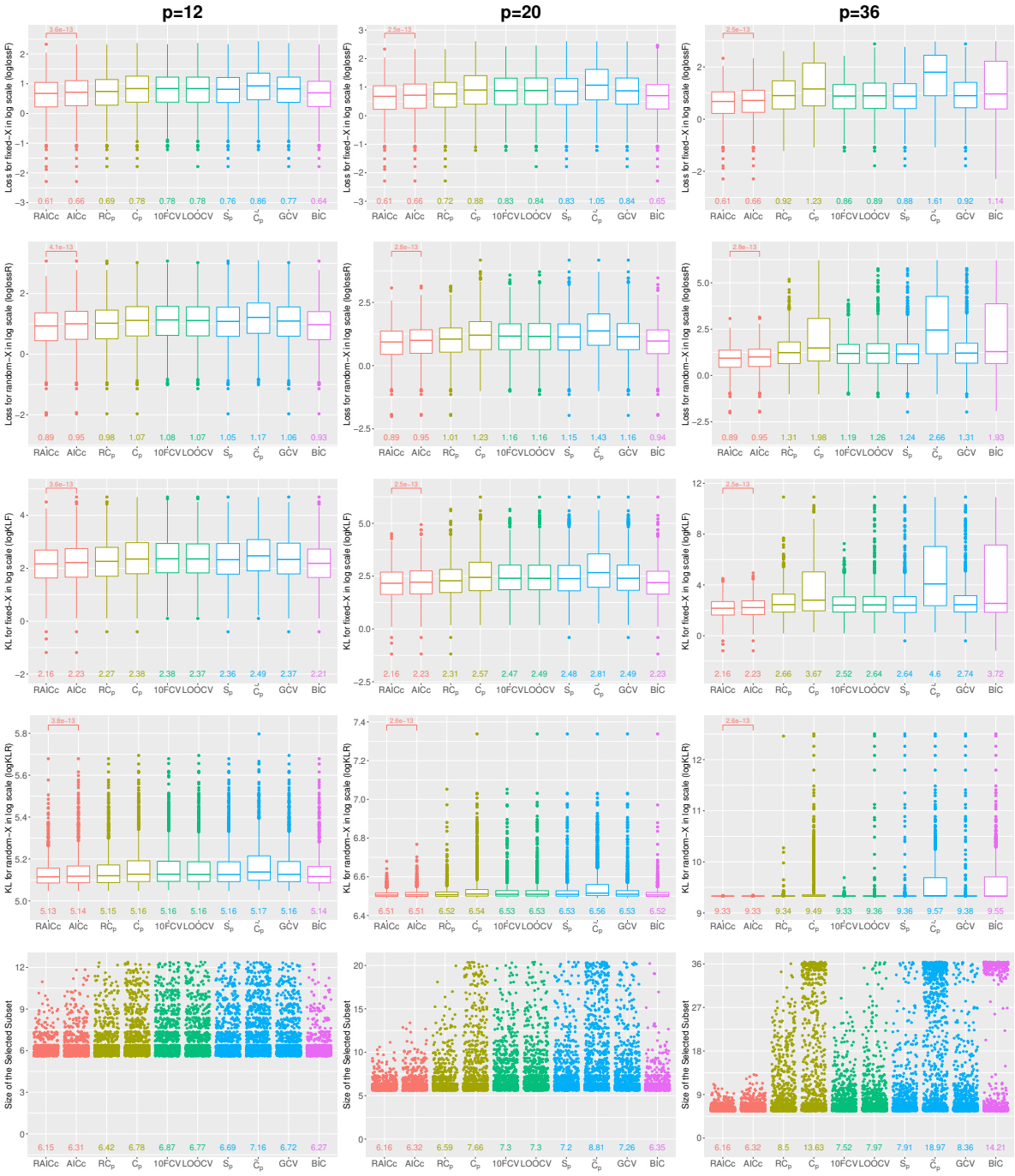

Figure S29: Variable selection, Fixed-X, Sparse-Ex2, $n = 40$, high signal, and $\rho = 0.5$.

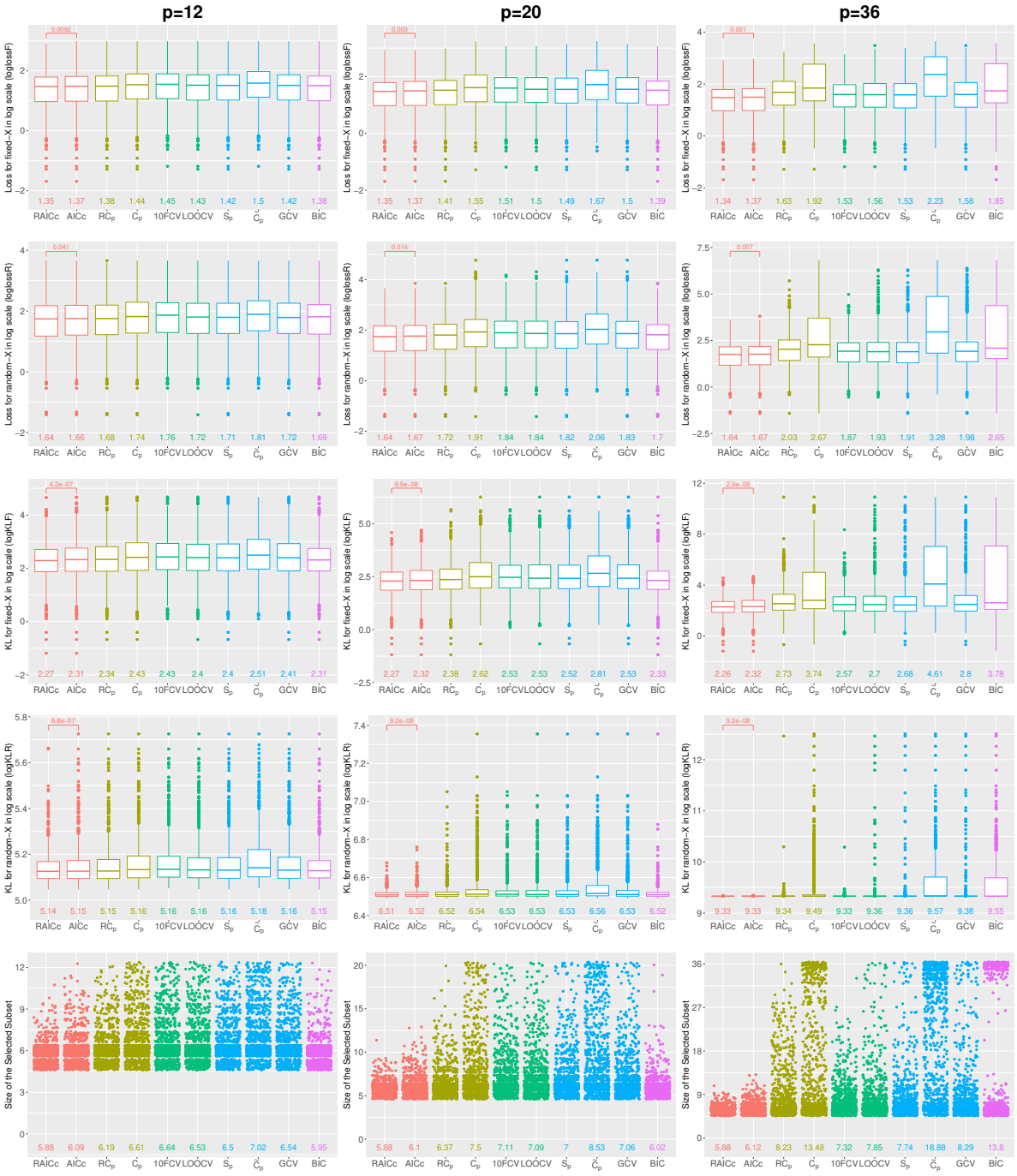

Figure S30: Variable selection, Fixed-X, Sparse-Ex2, $n = 40$, high signal, and $\rho = 0.9$.

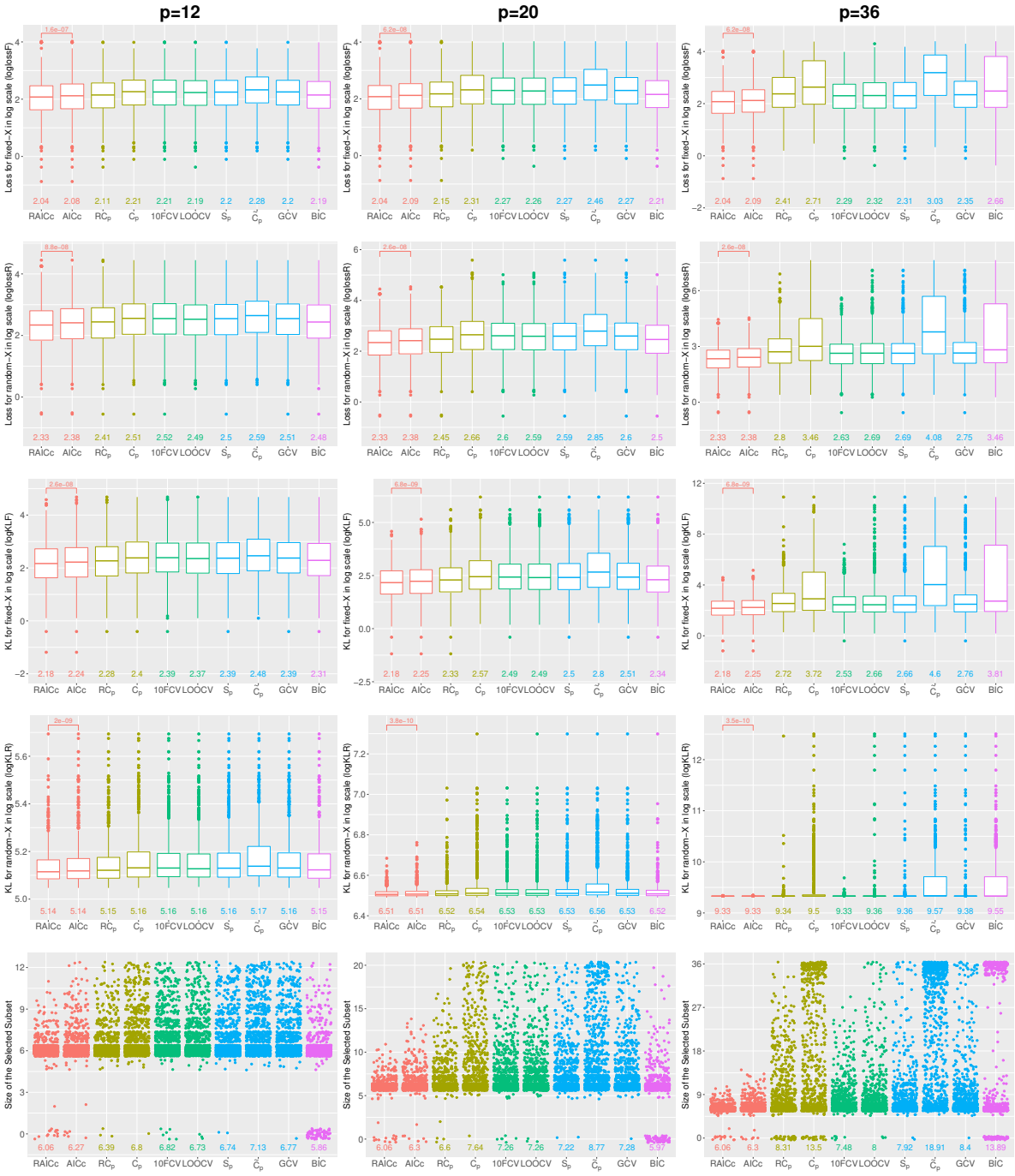

Figure S31: Variable selection, Fixed-X, Sparse-Ex2, $n = 40$, medium signal, and $\rho = 0$.

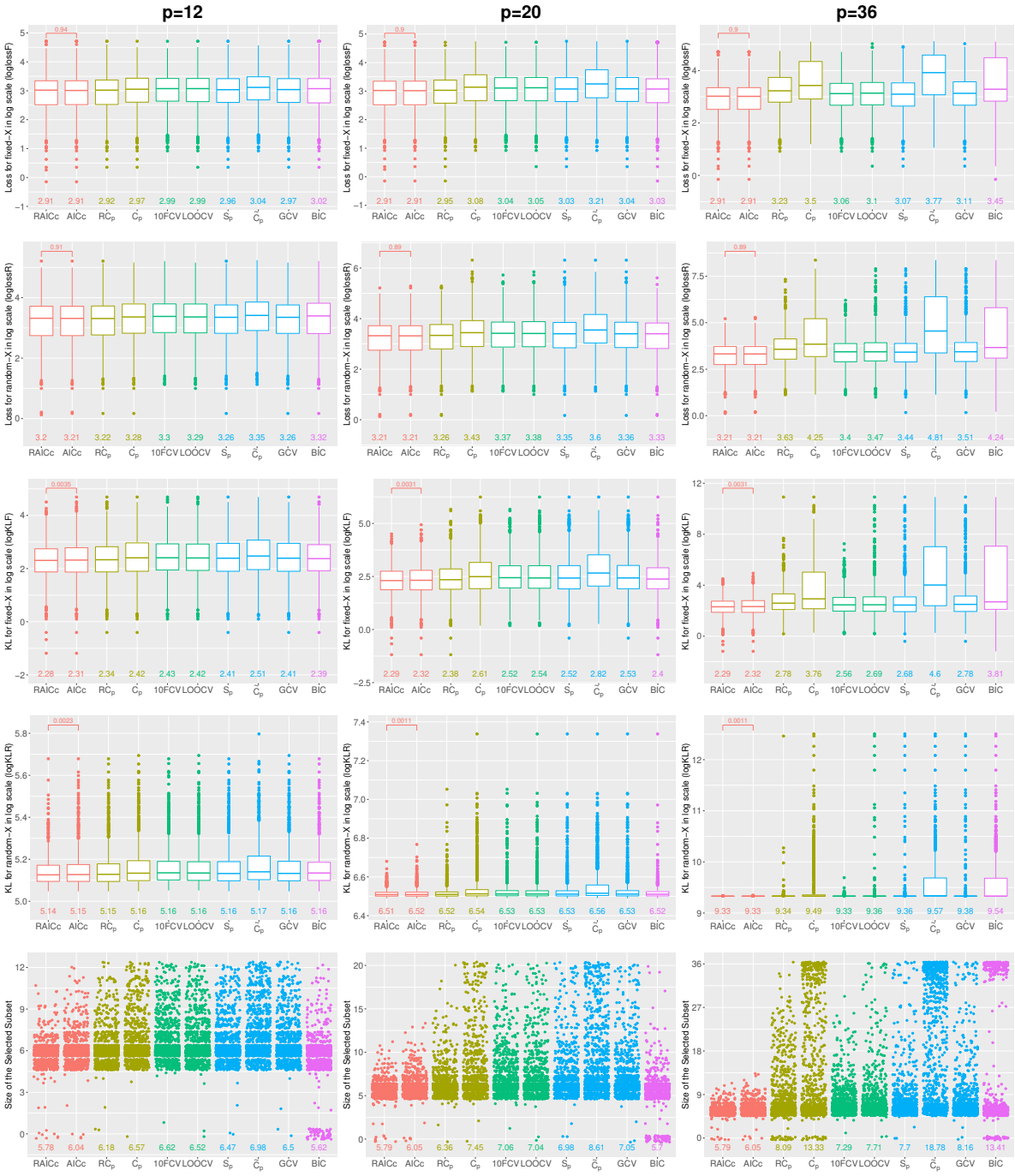

Figure S32: Variable selection, Fixed-X, Sparse-Ex2, $n = 40$, medium signal, and $\rho = 0.5$.

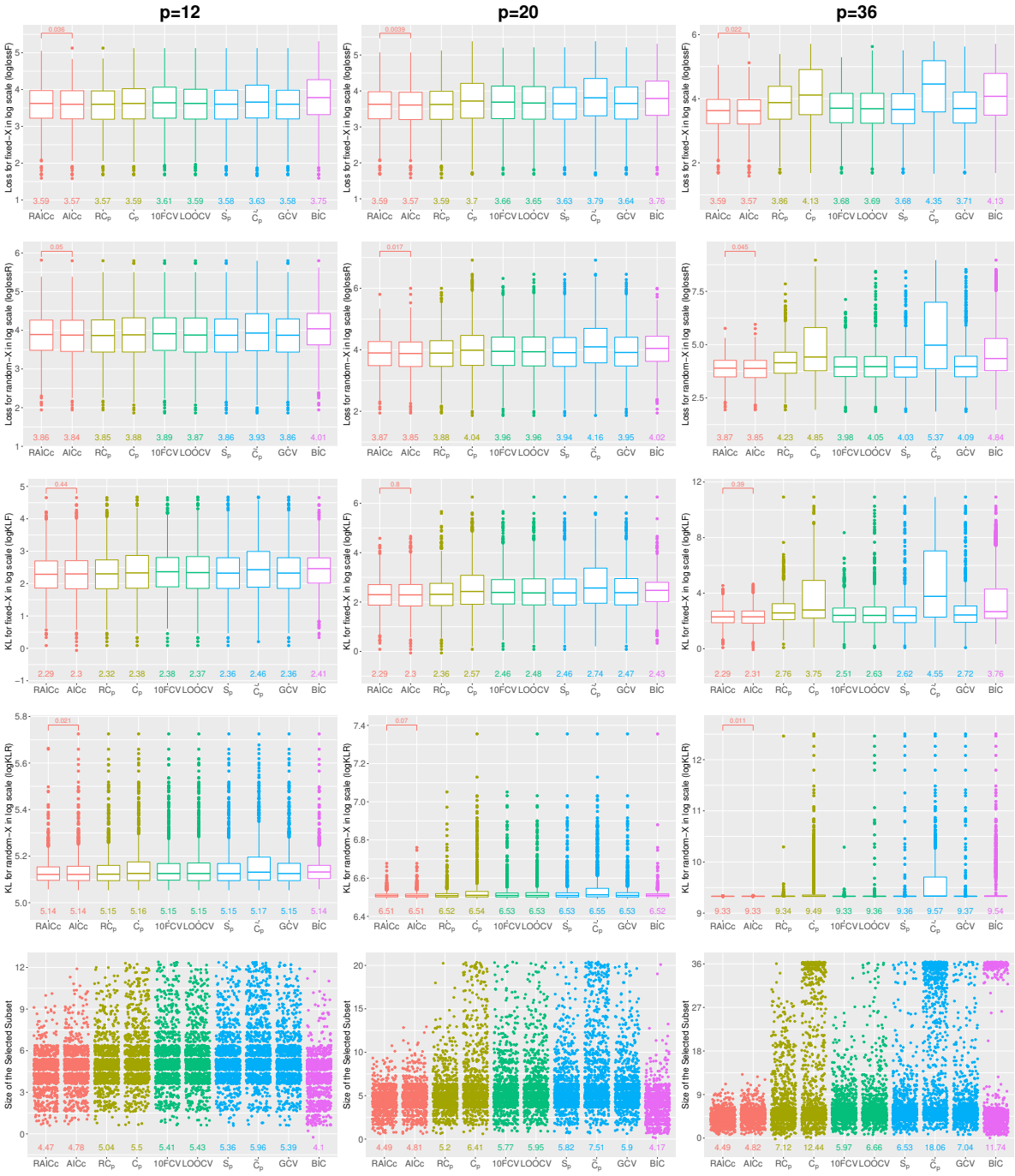

Figure S33: Variable selection, Fixed-X, Sparse-Ex2, $n = 40$, medium signal, and $\rho = 0.9$.

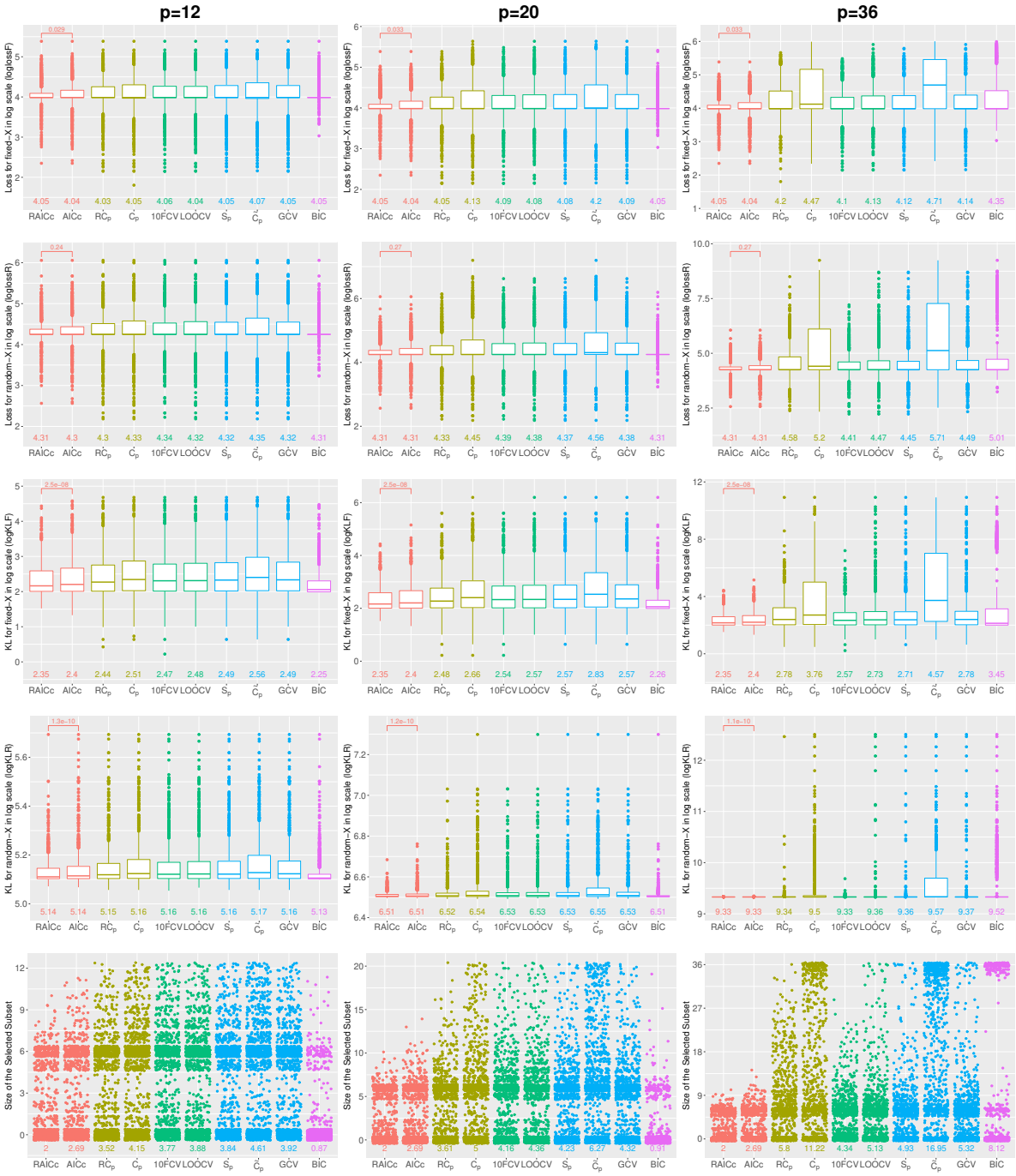

Figure S34: Variable selection, Fixed-X, Sparse-Ex2, $n = 40$, low signal, and $\rho = 0$.

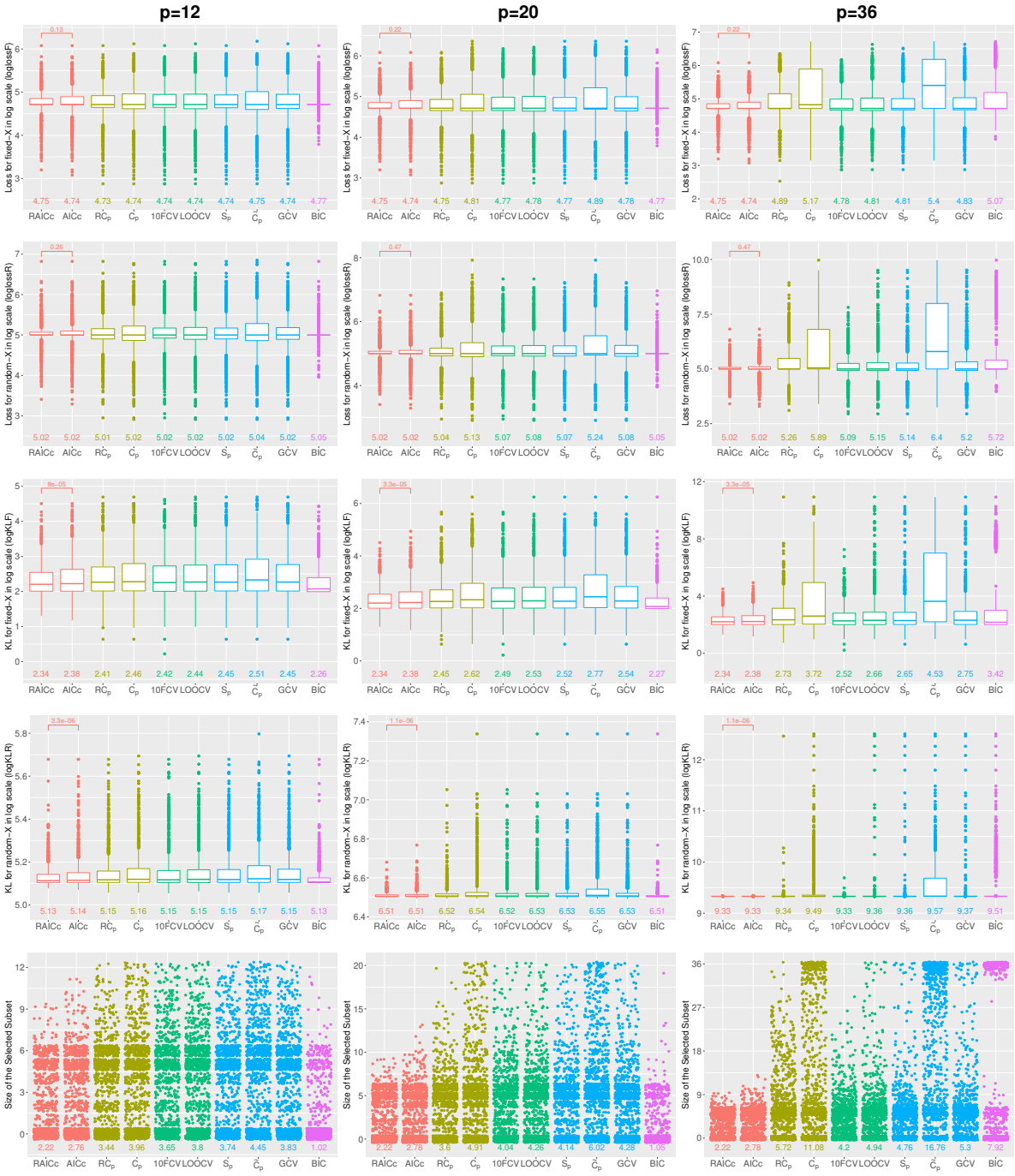

Figure S35: Variable selection, Fixed-X, Sparse-Ex2, $n = 40$, low signal, and $\rho = 0.5$.

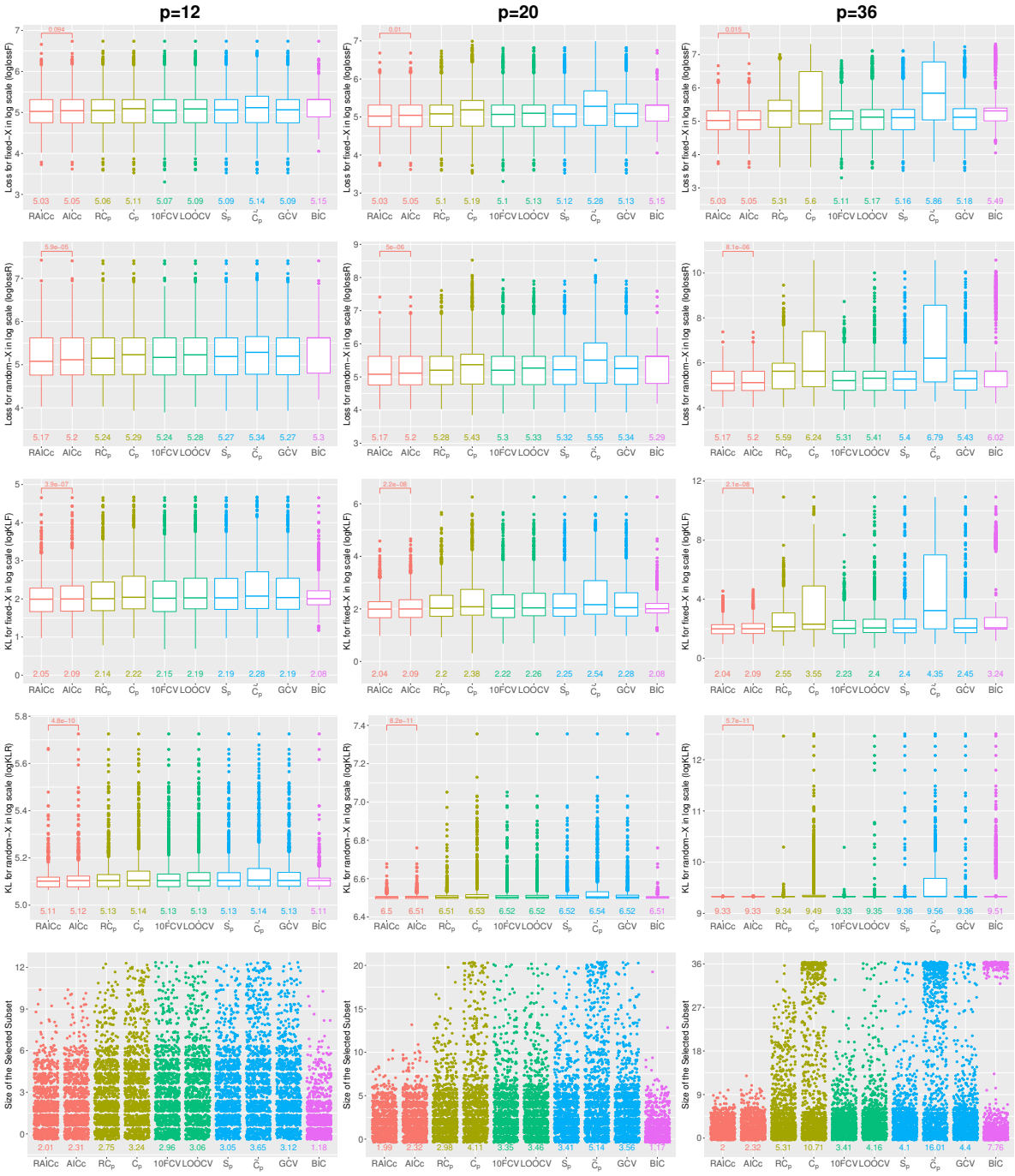

Figure S36: Variable selection, Fixed-X, Sparse-Ex2, $n = 40$, low signal, and $\rho = 0.9$.

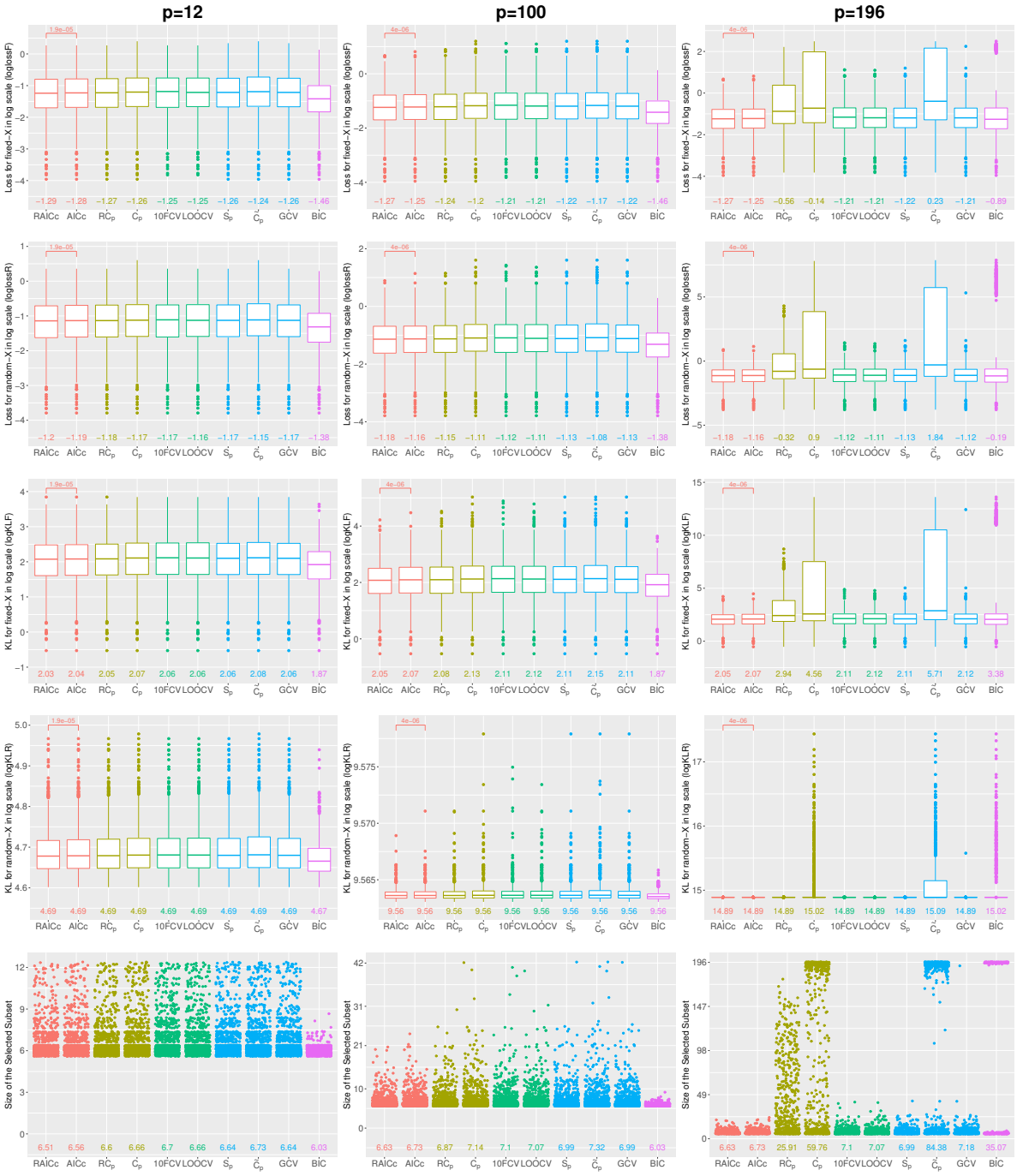

Figure S37: Variable selection, Fixed-X, Sparse-Ex2, $n = 200$, high signal, and $\rho = 0$.

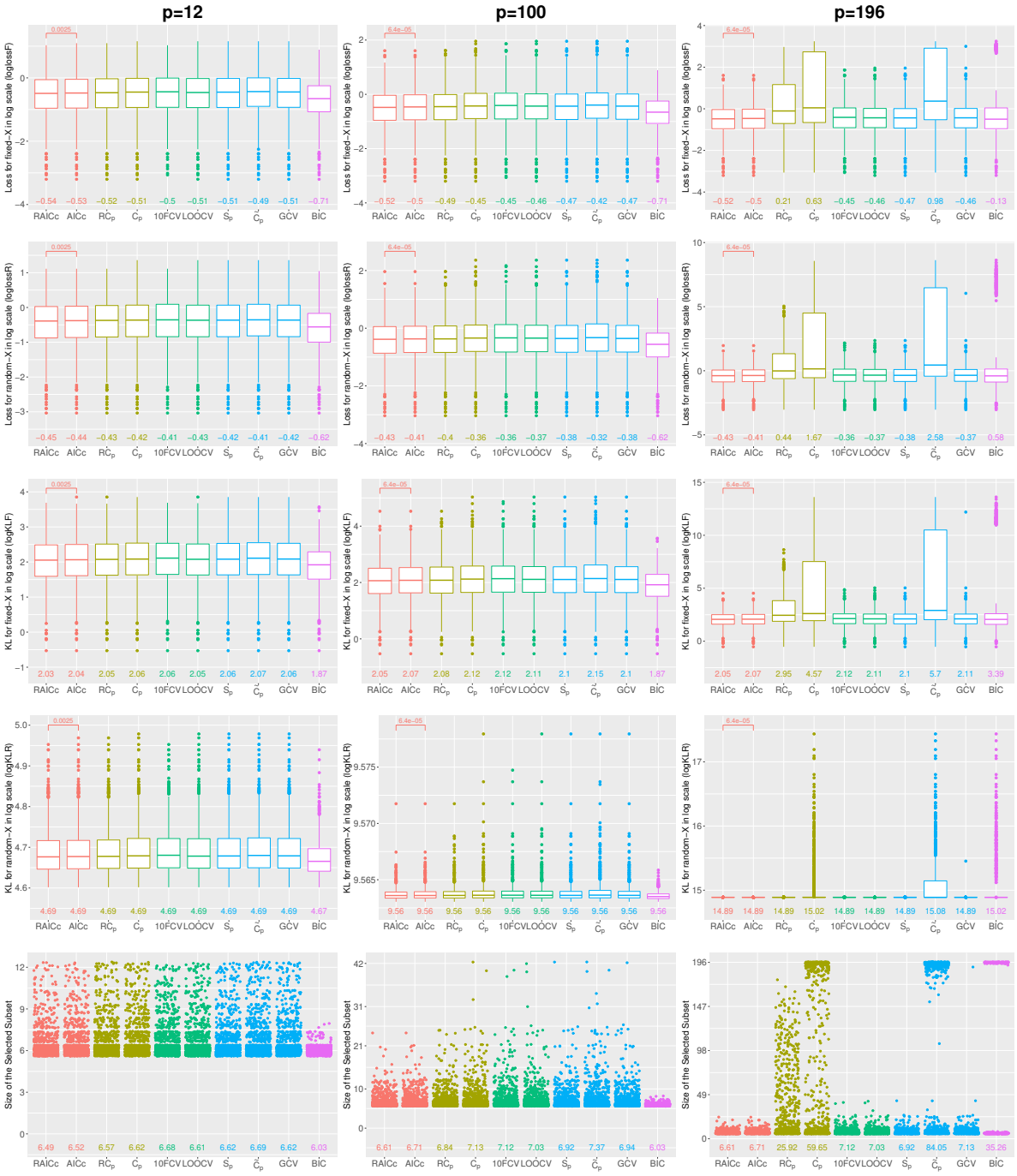

Figure S38: Variable selection, Fixed-X, Sparse-Ex2, $n = 200$, high signal, and $\rho = 0.5$.

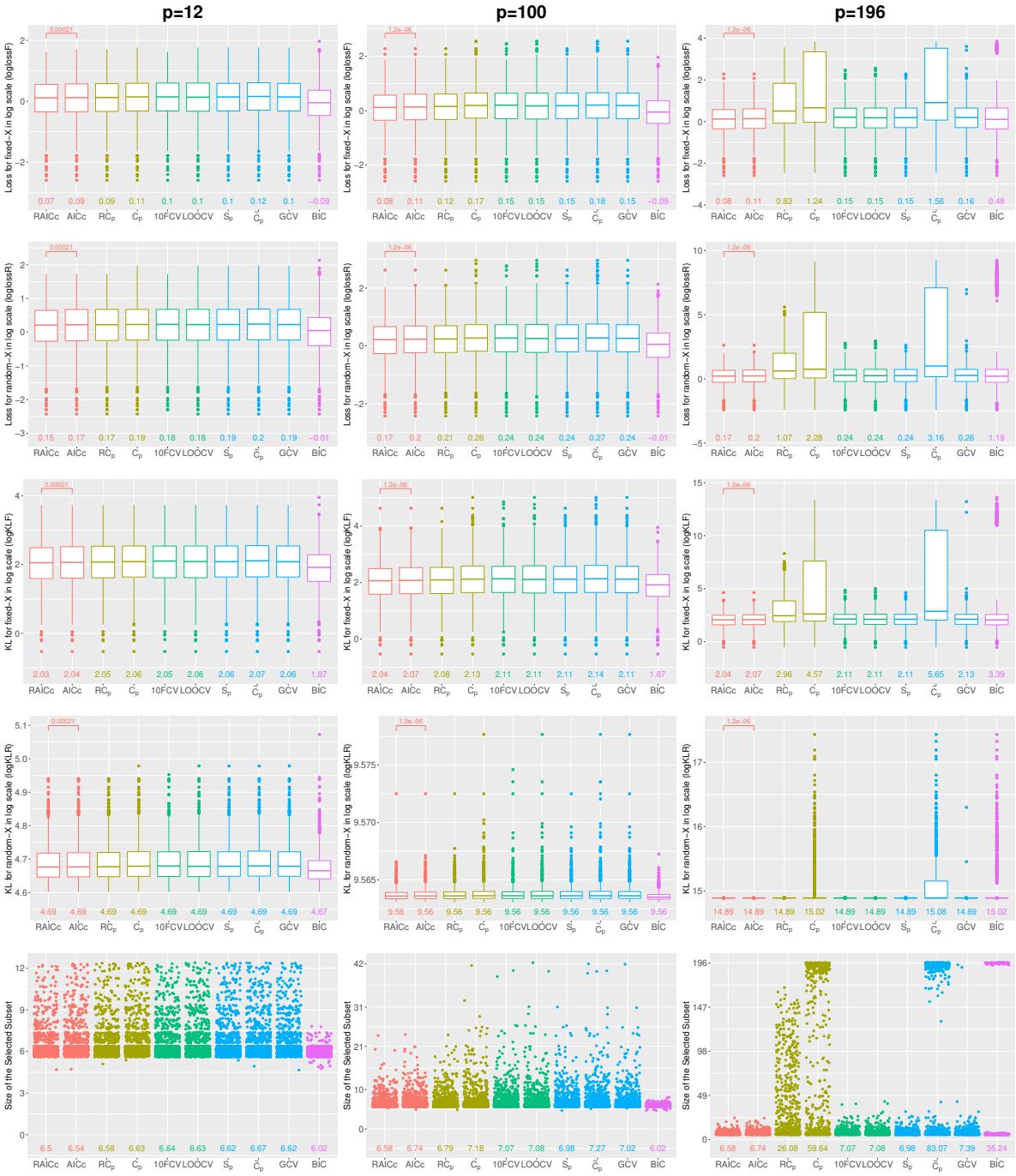

Figure S39: Variable selection, Fixed-X, Sparse-Ex2, $n = 200$, high signal, and $\rho = 0.9$.

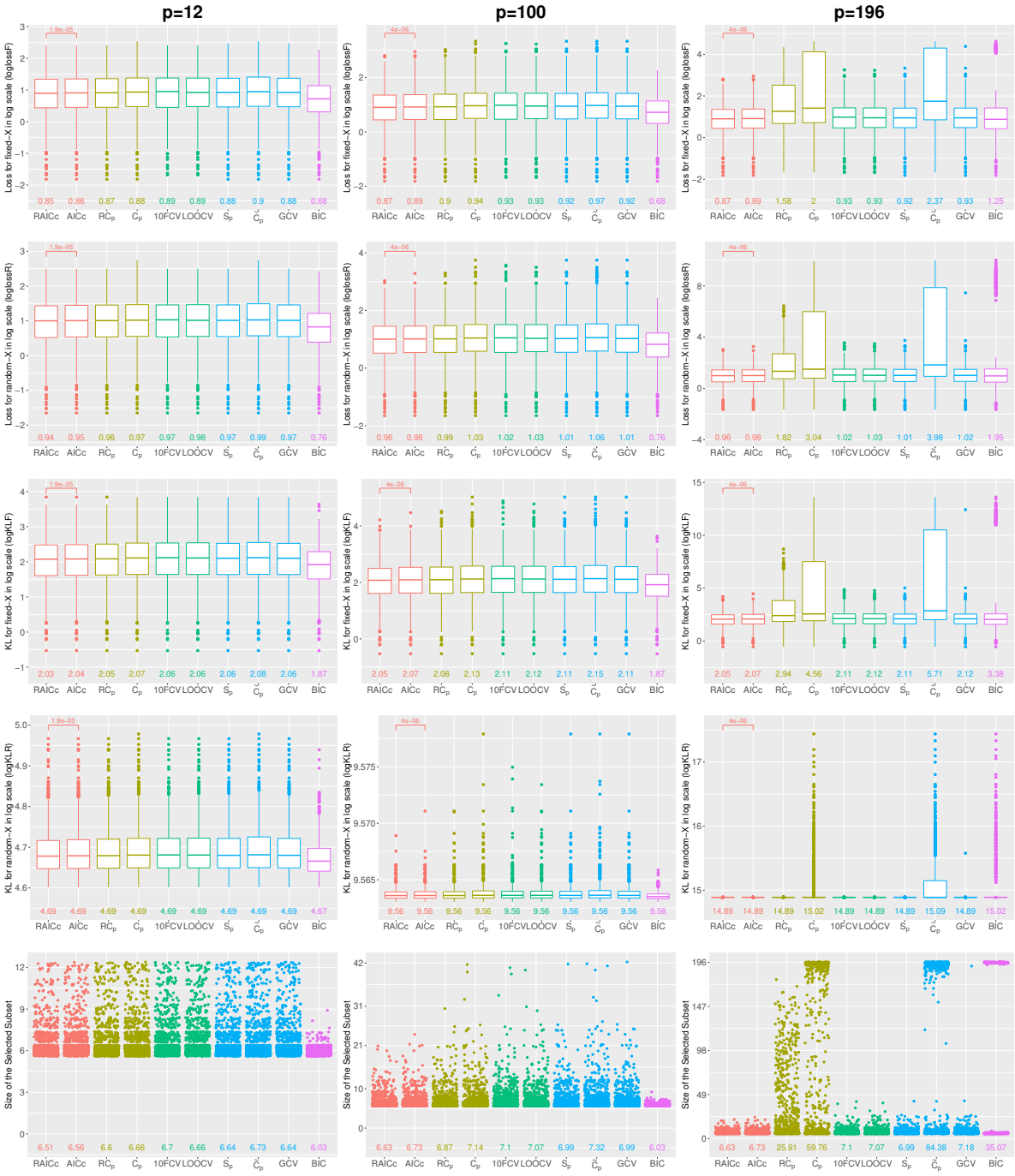

Figure S40: Variable selection, Fixed-X, Sparse-Ex2, $n = 200$, medium signal, and $\rho = 0$.

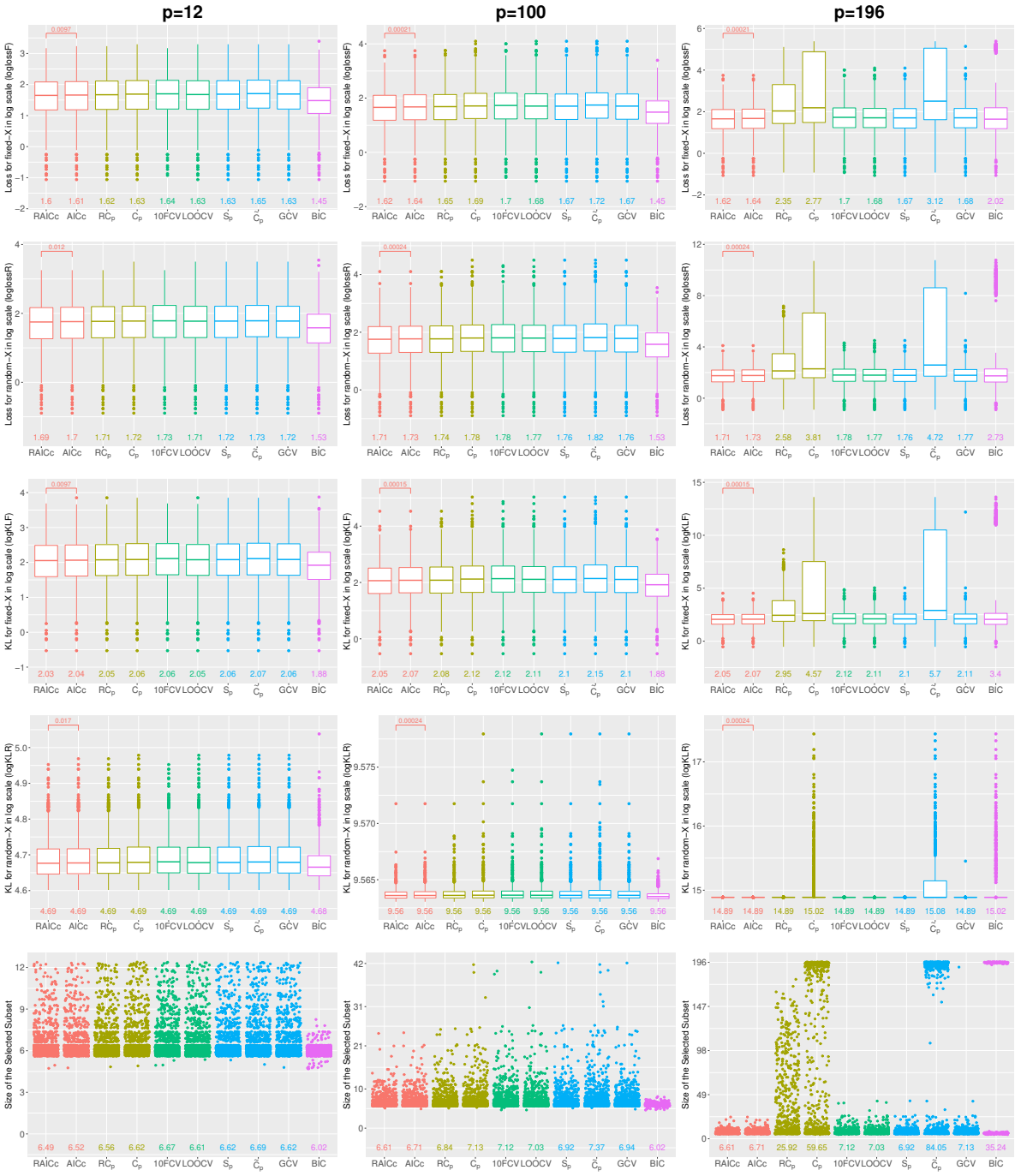

Figure S41: Variable selection, Fixed-X, Sparse-Ex2, $n = 200$, medium signal, and $\rho = 0.5$.

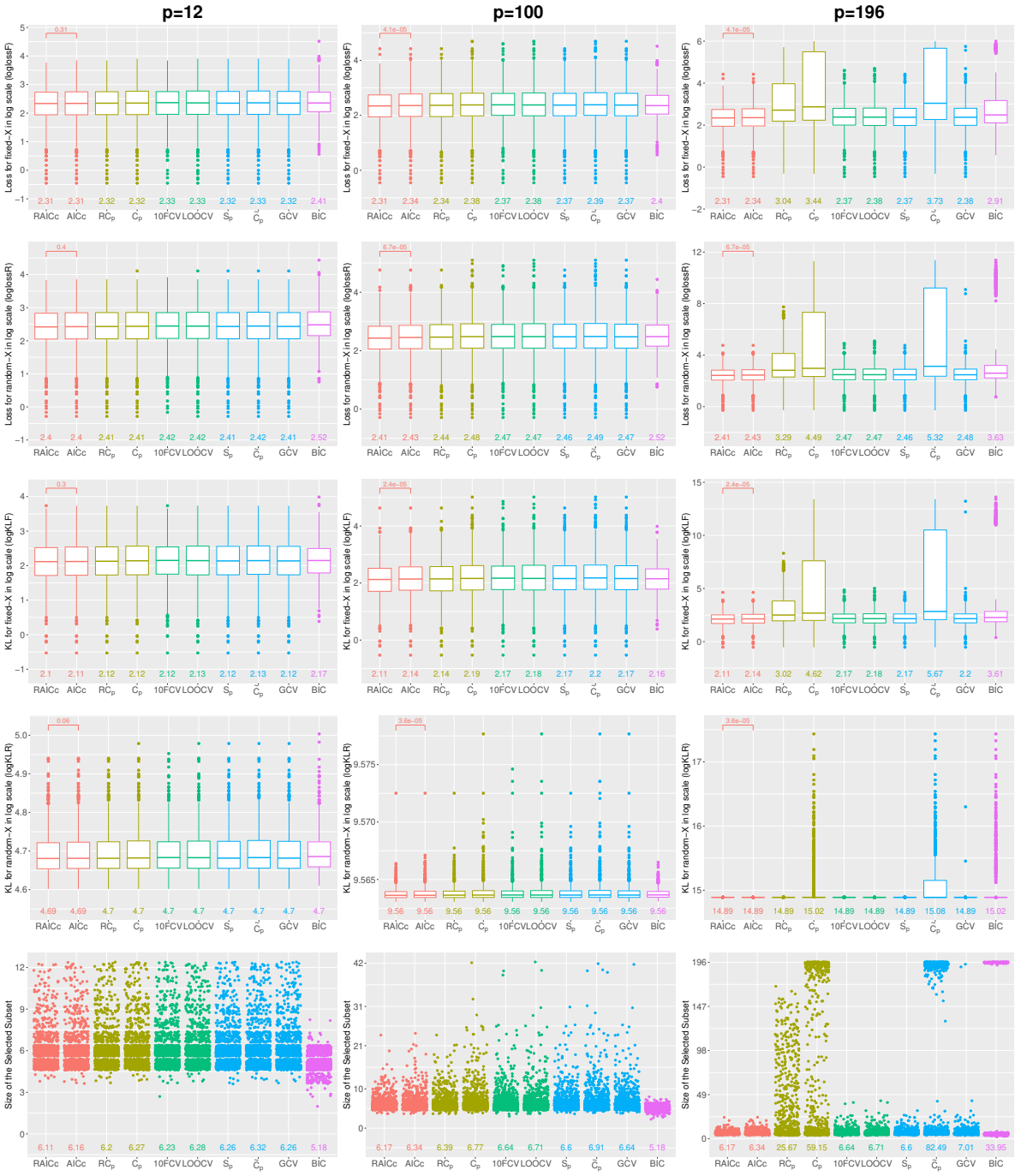

Figure S42: Variable selection, Fixed-X, Sparse-Ex2, $n = 200$, medium signal, and $\rho = 0.9$.

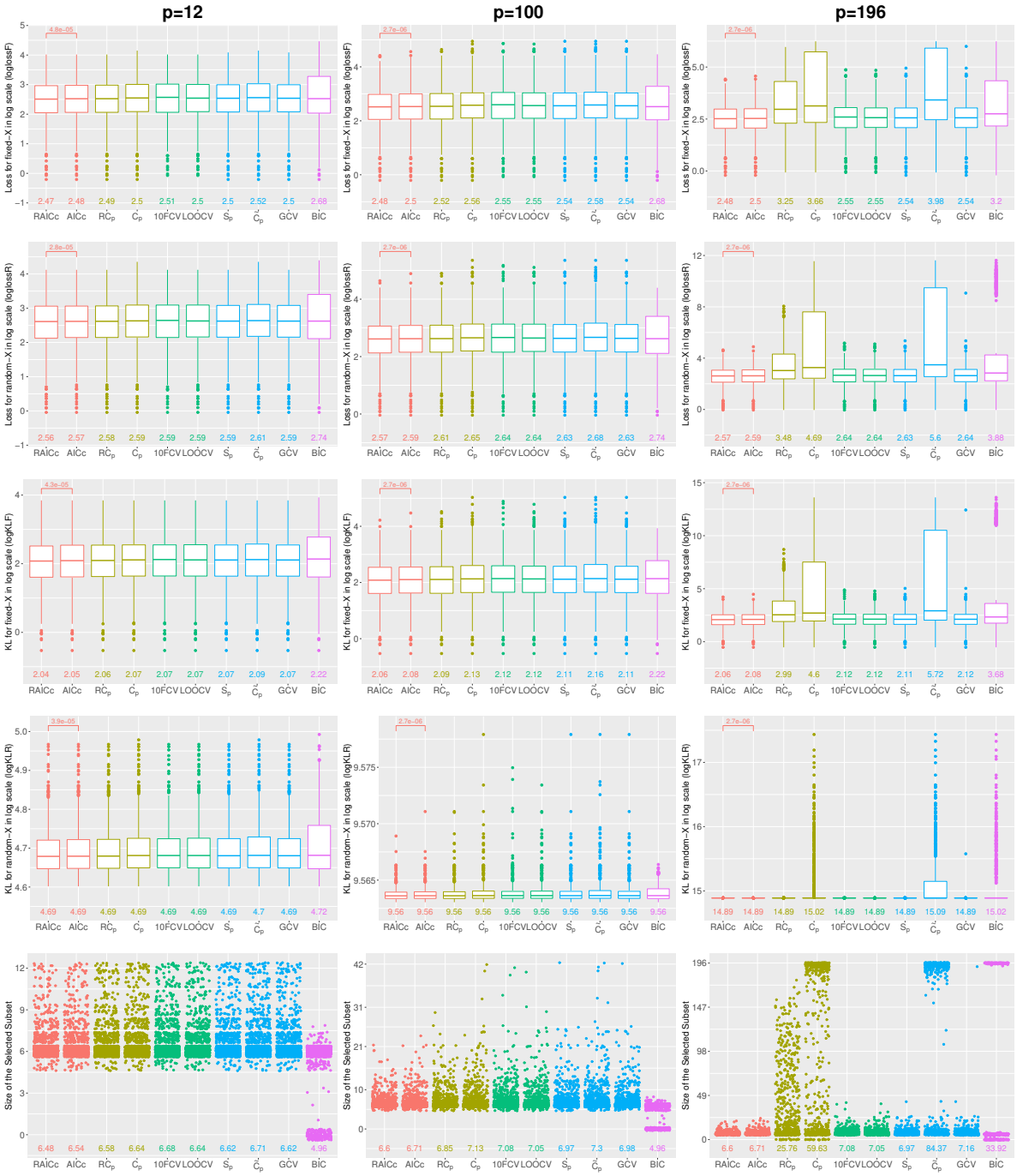

Figure S43: Variable selection, Fixed-X, Sparse-Ex2, $n = 200$, low signal, and $\rho = 0$.

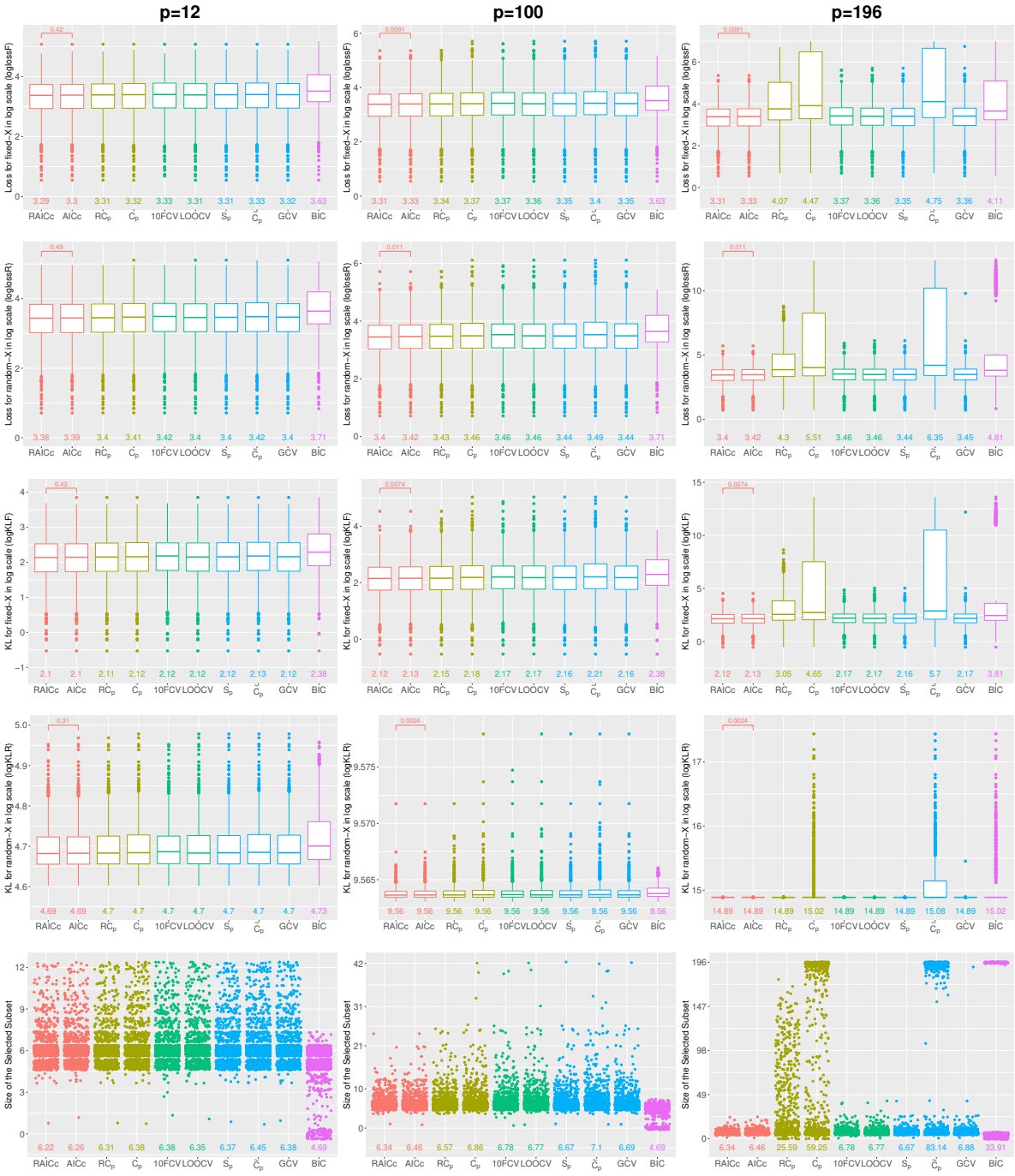

Figure S44: Variable selection, Fixed-X, Sparse-Ex2, $n = 200$, low signal, and $\rho = 0.5$.

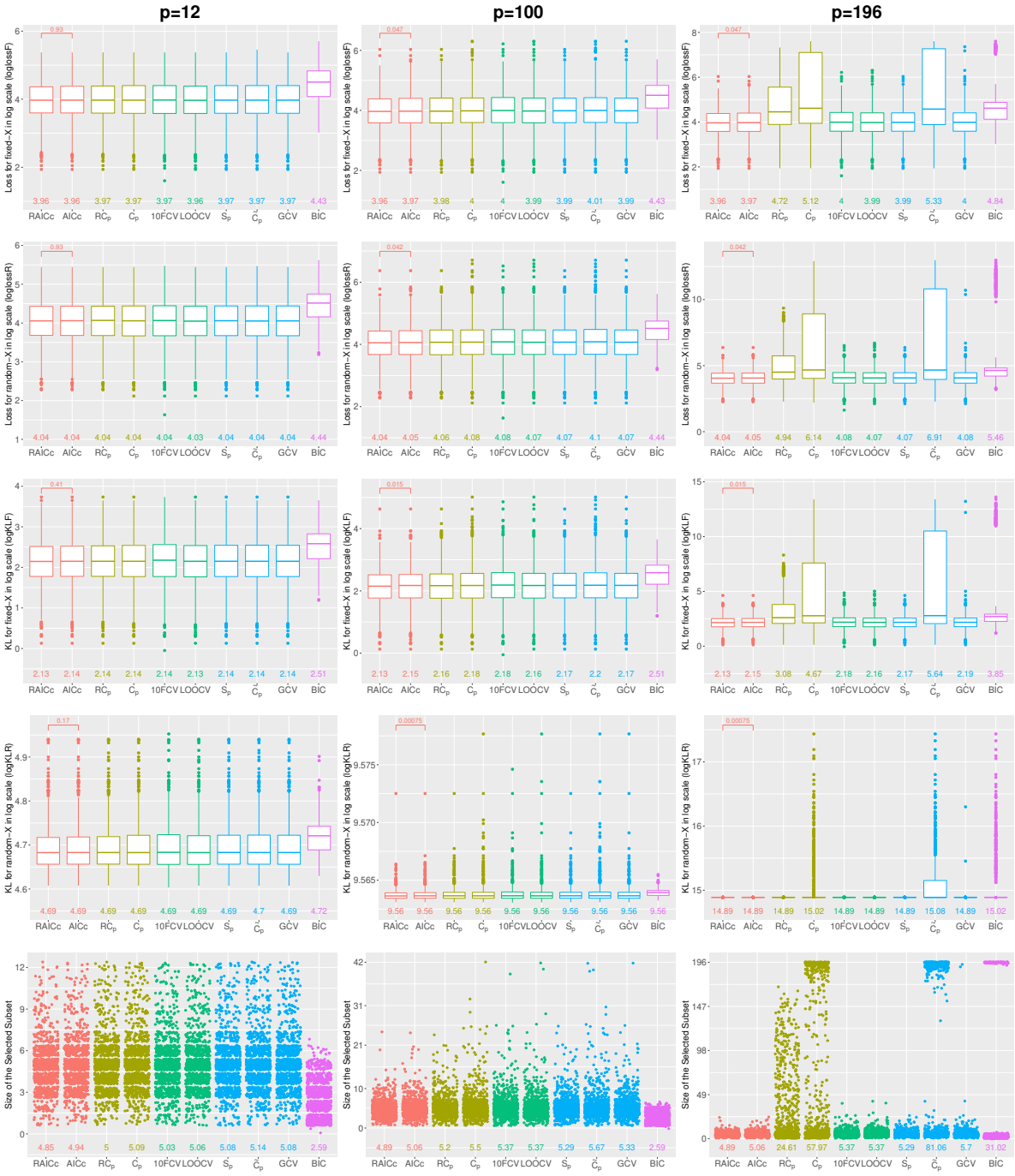

Figure S45: Variable selection, Fixed-X, Sparse-Ex2, $n = 200$, low signal, and $\rho = 0.9$.

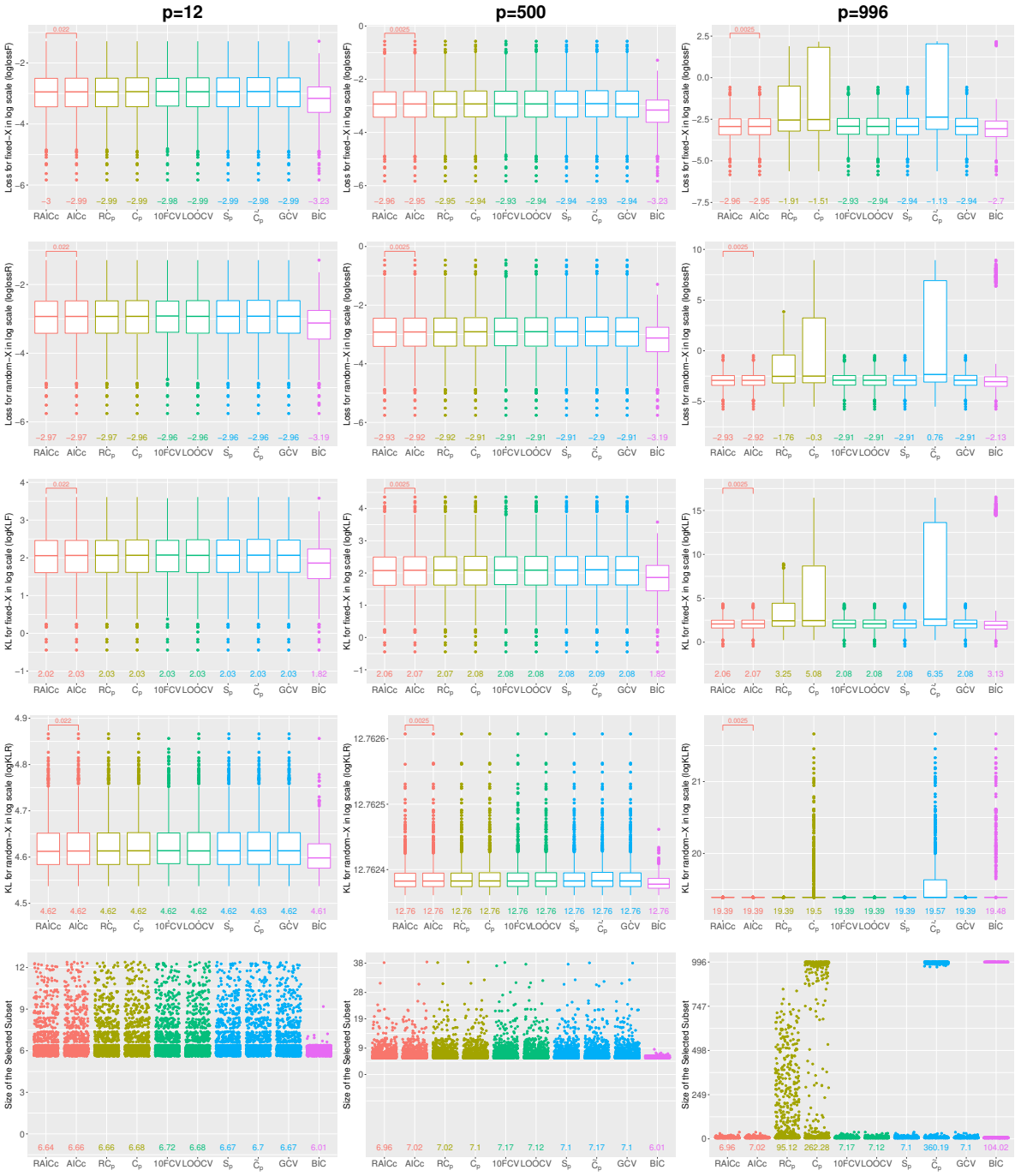

Figure S46: Variable selection, Fixed-X, Sparse-Ex2, $n = 1000$, high signal, and $\rho = 0$.

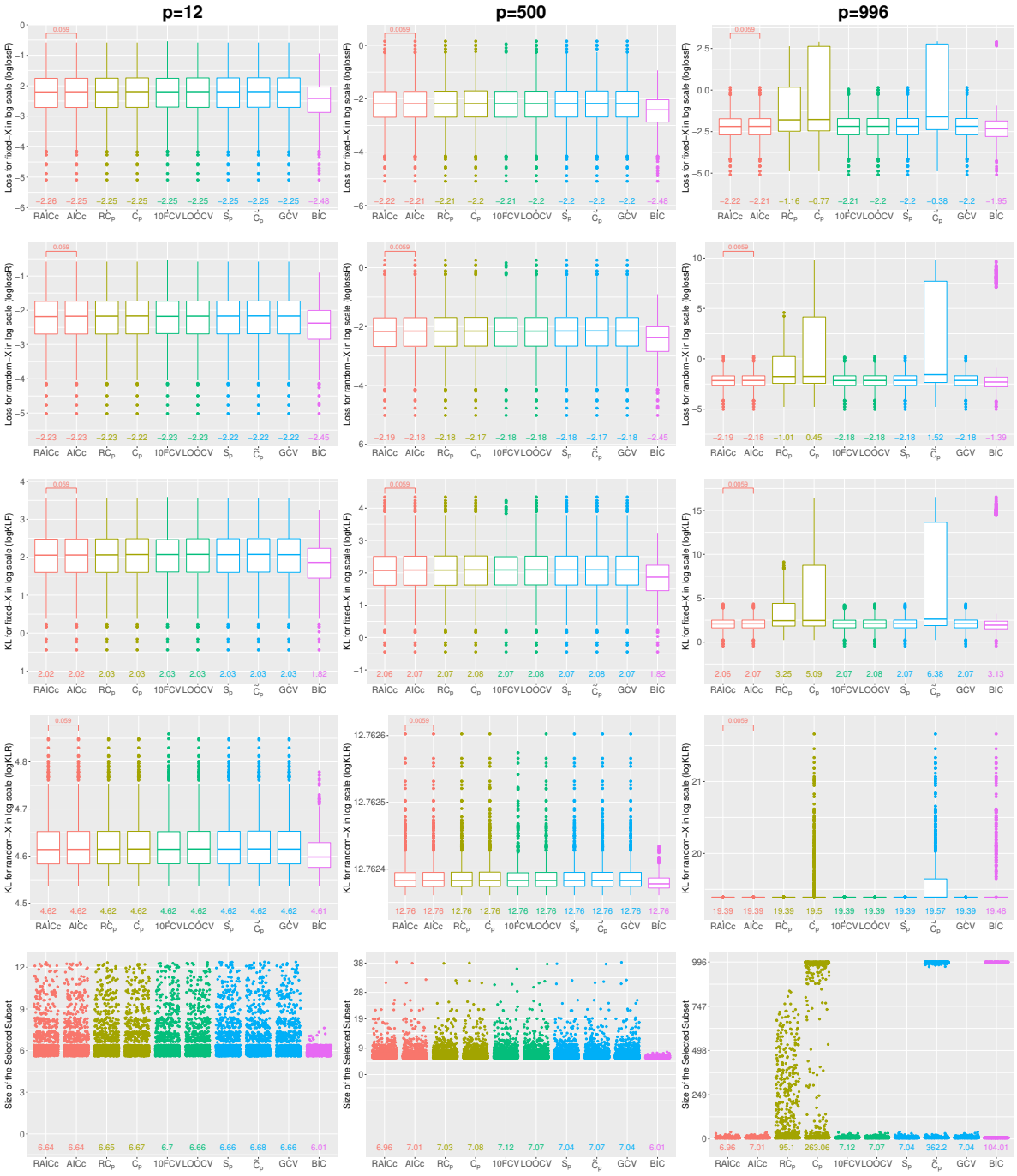

Figure S47: Variable selection, Fixed-X, Sparse-Ex2, $n = 1000$, high signal, and $\rho = 0.5$.

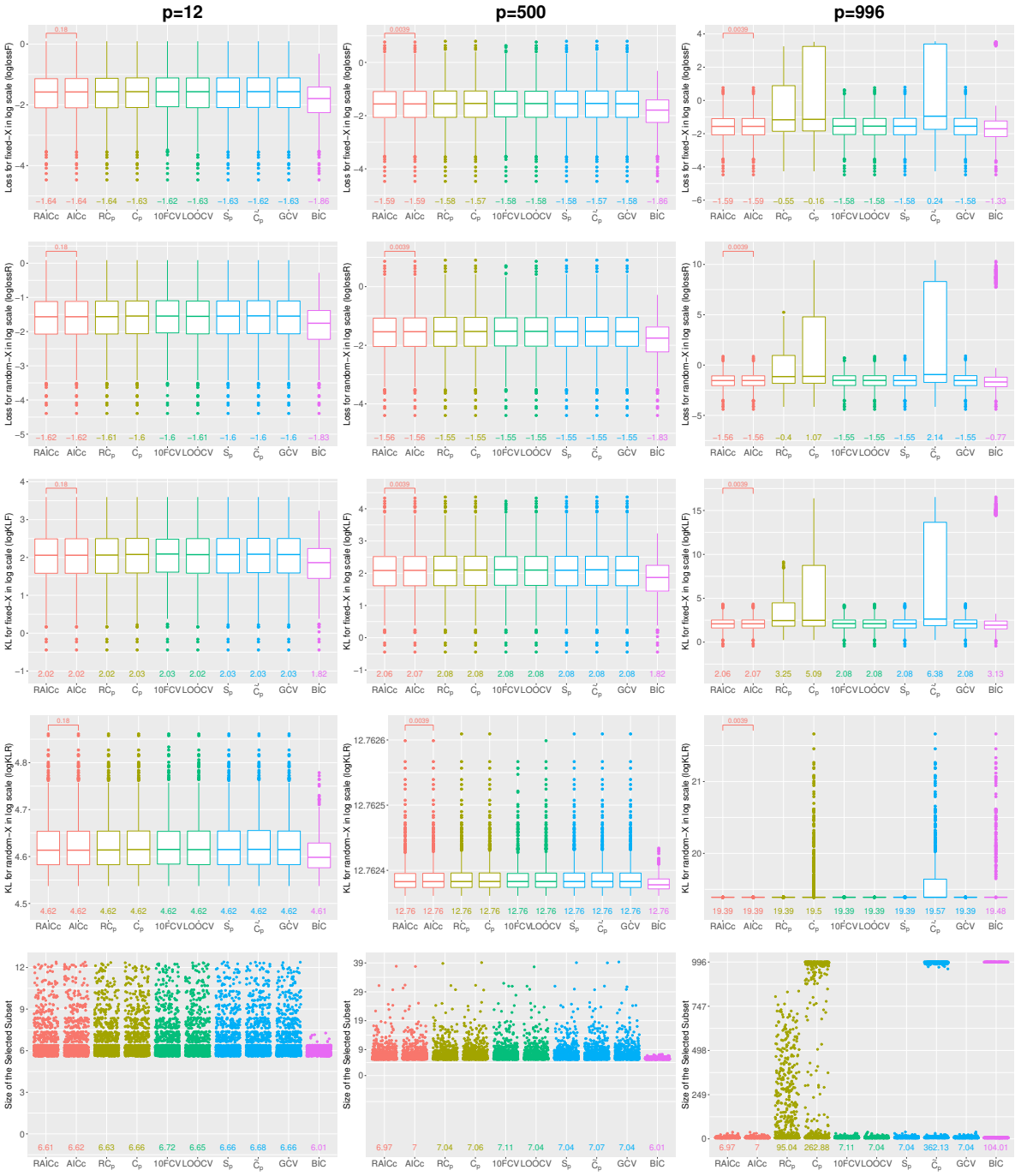

Figure S48: Variable selection, Fixed-X, Sparse-Ex2, $n = 1000$, high signal, and $\rho = 0.9$.

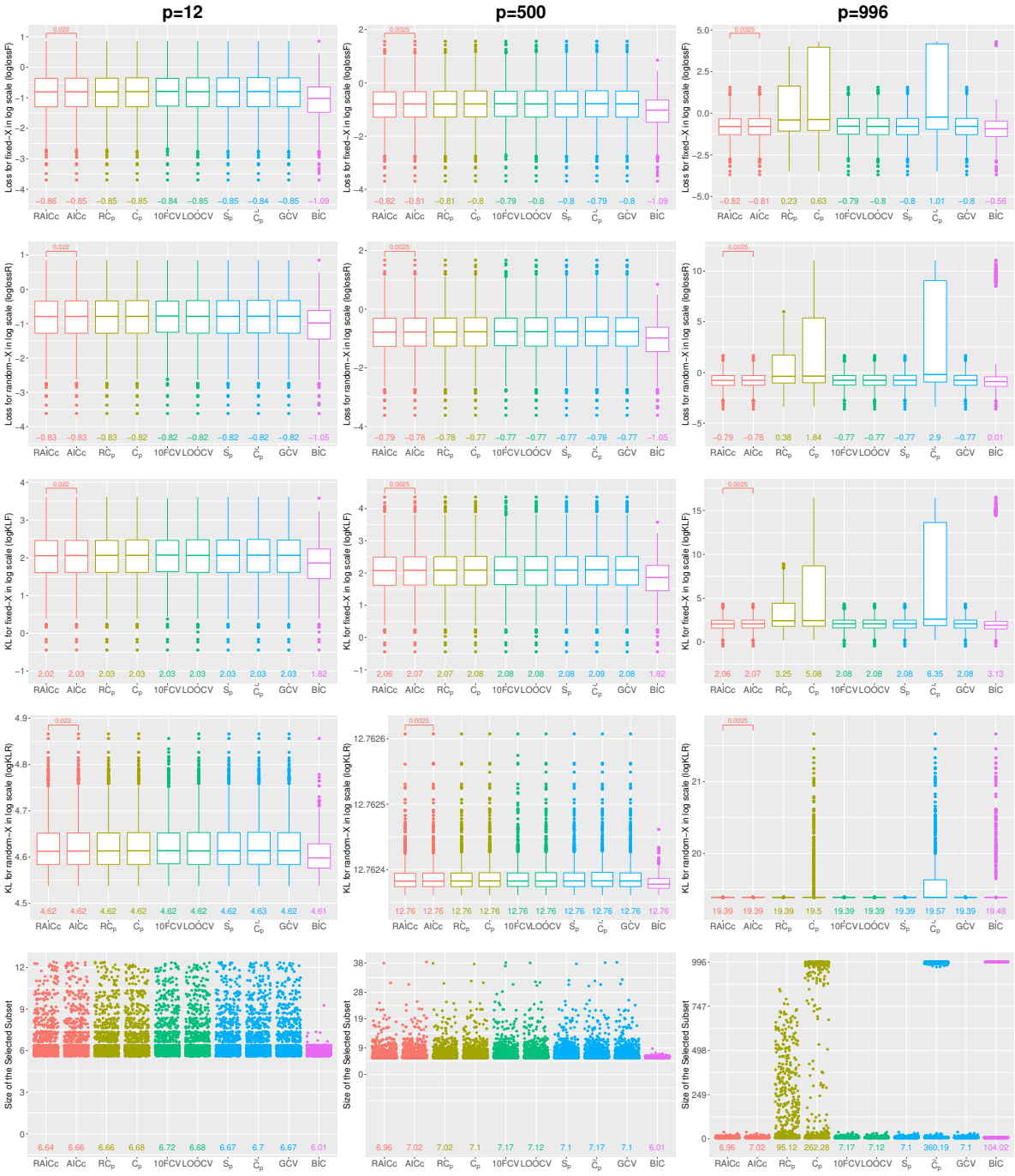

Figure S49: Variable selection, Fixed-X, Sparse-Ex2, $n = 1000$, medium signal, and $\rho = 0$.

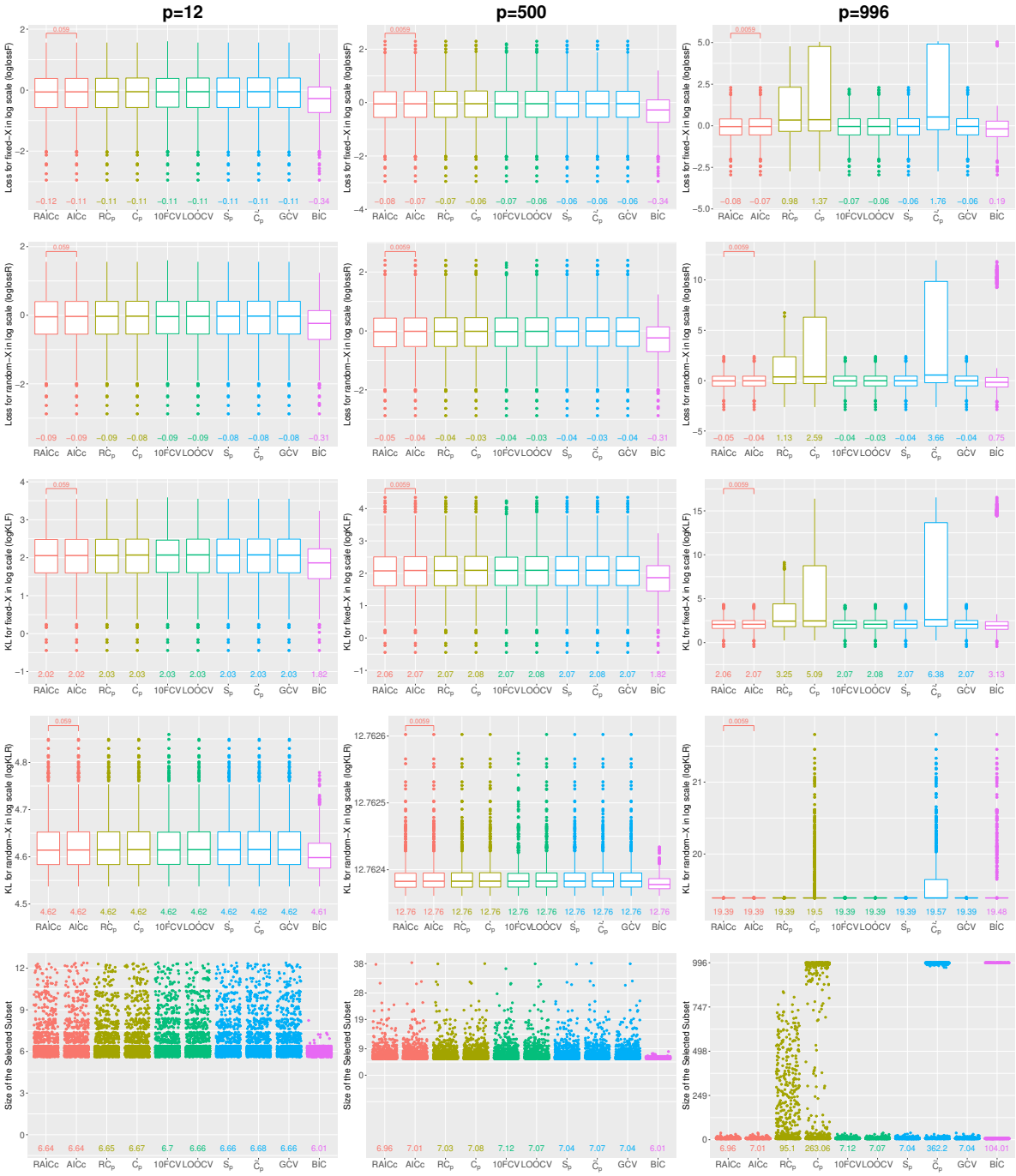

Figure S50: Variable selection, Fixed-X, Sparse-Ex2, $n = 1000$, medium signal, and $\rho = 0.5$.

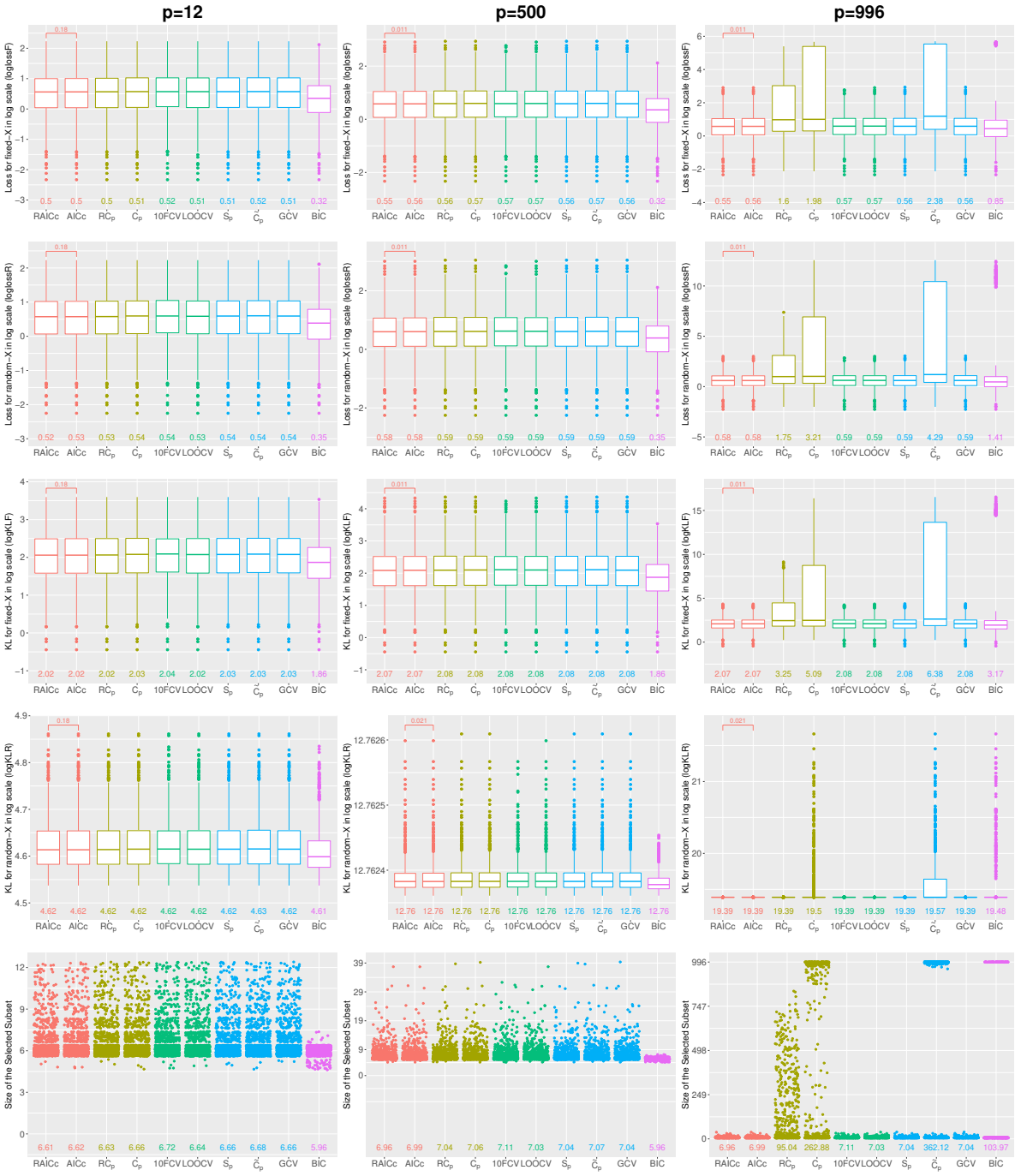

Figure S51: Variable selection, Fixed-X, Sparse-Ex2, $n = 1000$, medium signal, and $\rho = 0.9$.

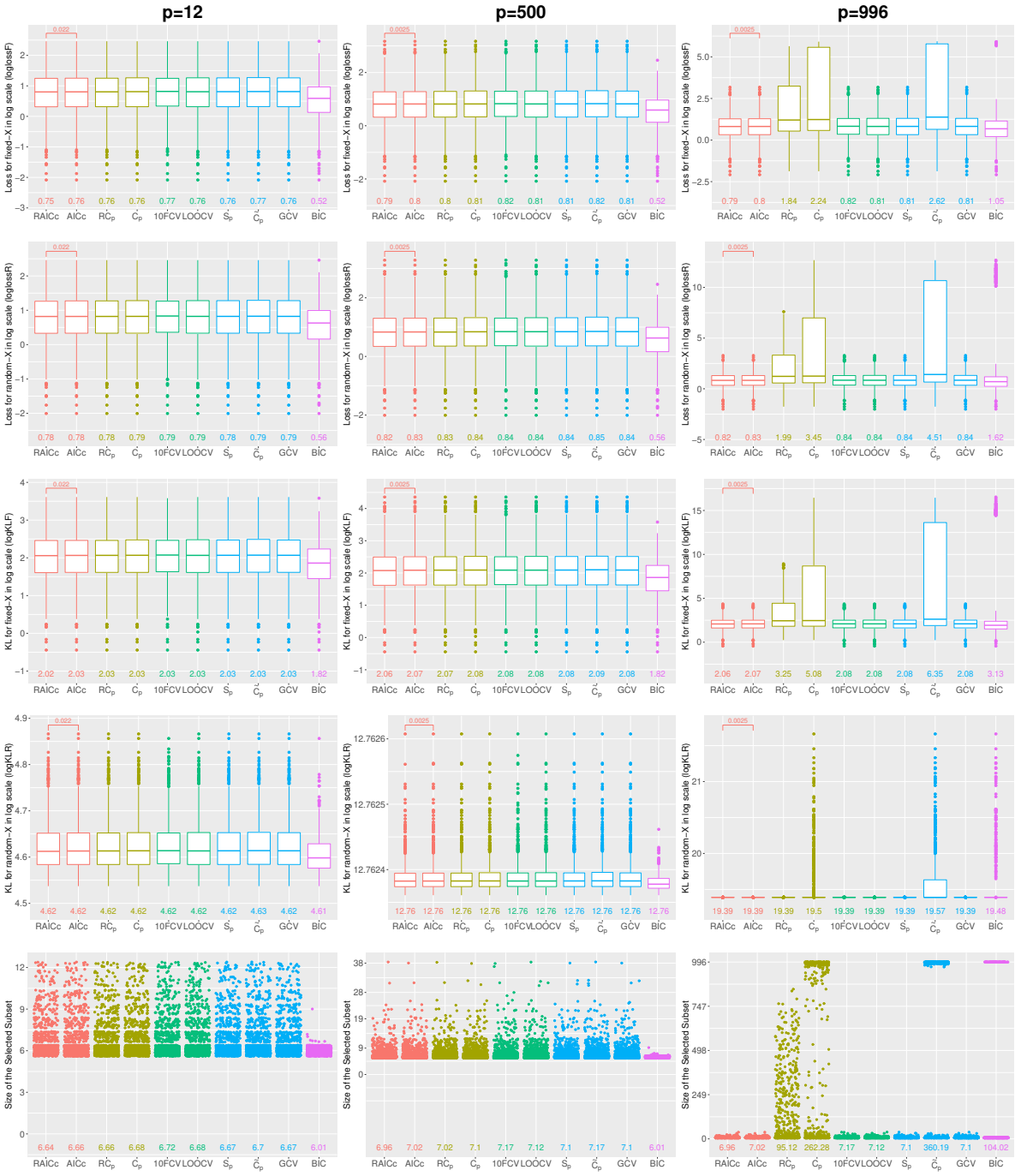

Figure S52: Variable selection, Fixed-X, Sparse-Ex2, $n = 1000$, low signal, and $\rho = 0$.

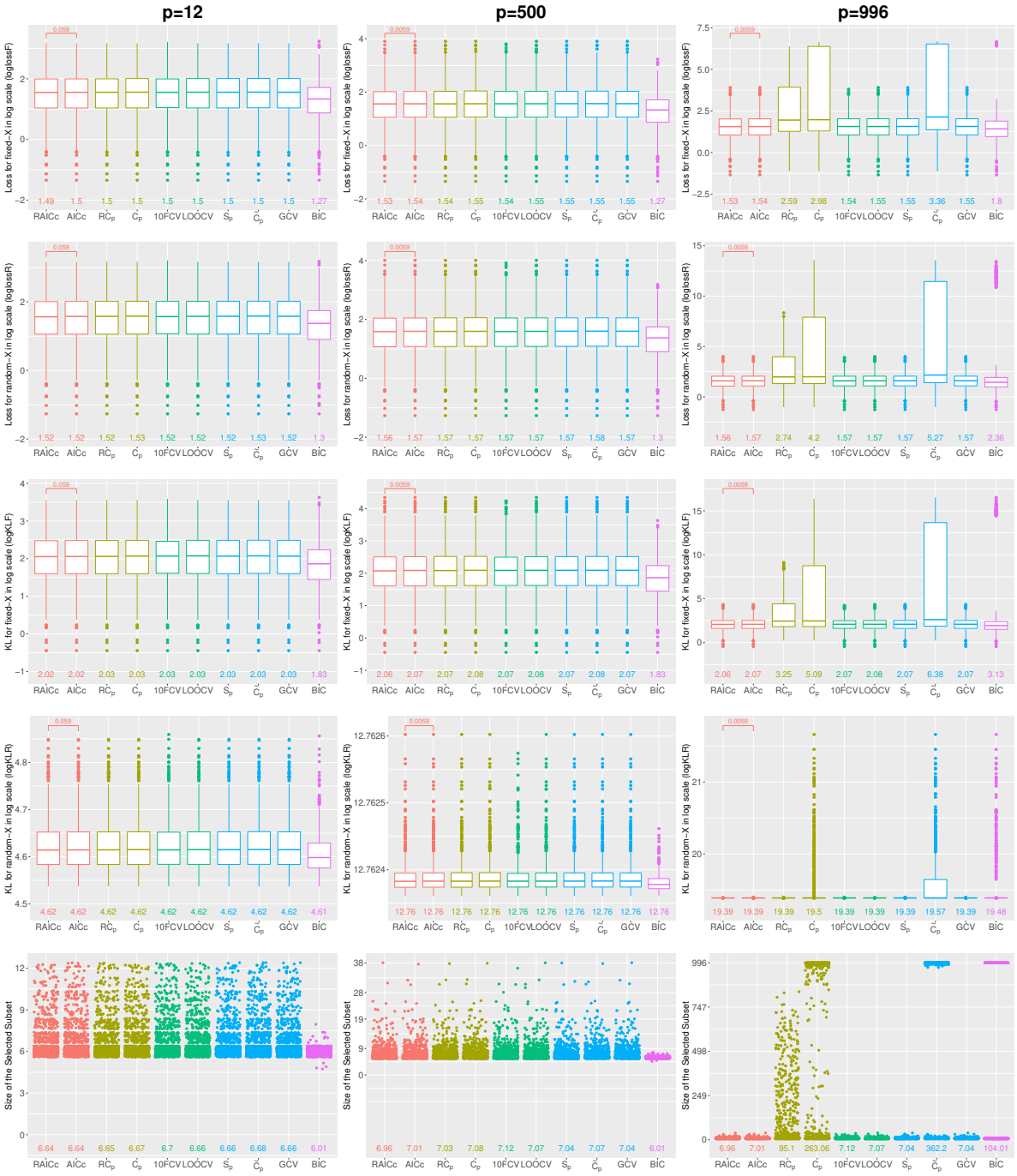

Figure S53: Variable selection, Fixed-X, Sparse-Ex2, $n = 1000$, low signal, and $\rho = 0.5$.

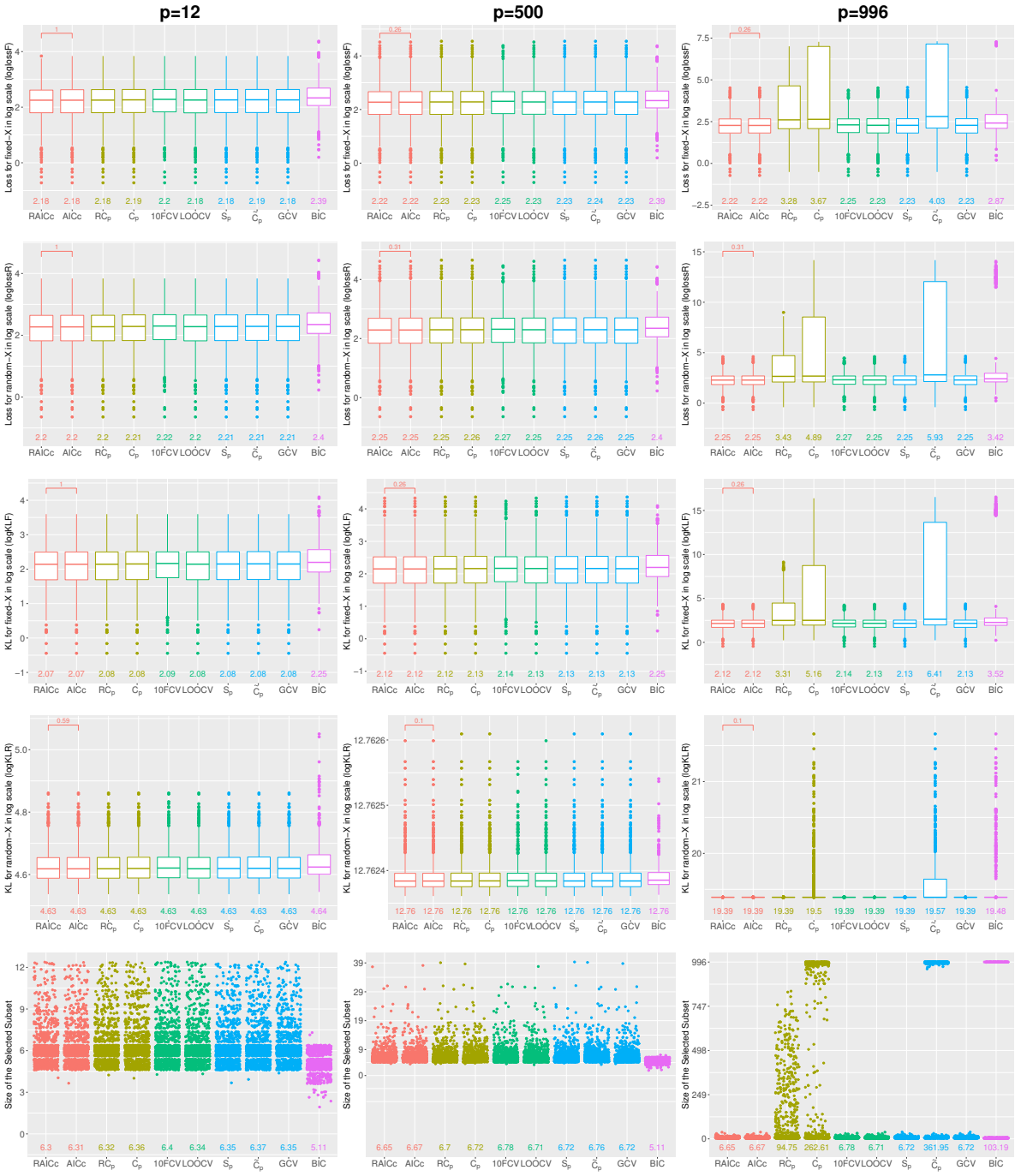

Figure S54: Variable selection, Fixed-X, Sparse-Ex2, $n = 1000$, low signal, and $\rho = 0.9$.

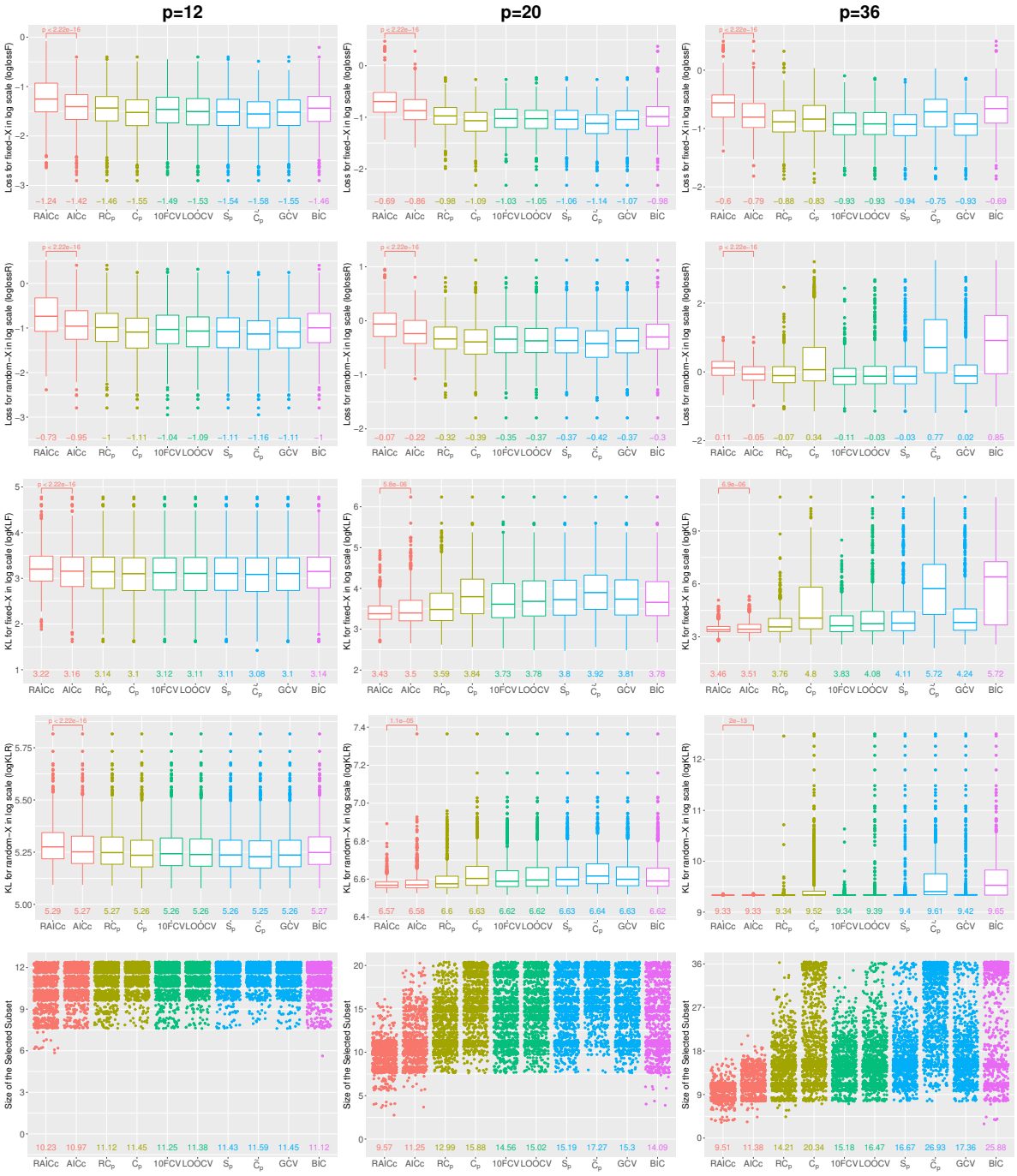

Figure S55: Variable selection, Fixed-X, Dense-Ex1, $n = 40$, high signal, and $\rho = 0$.

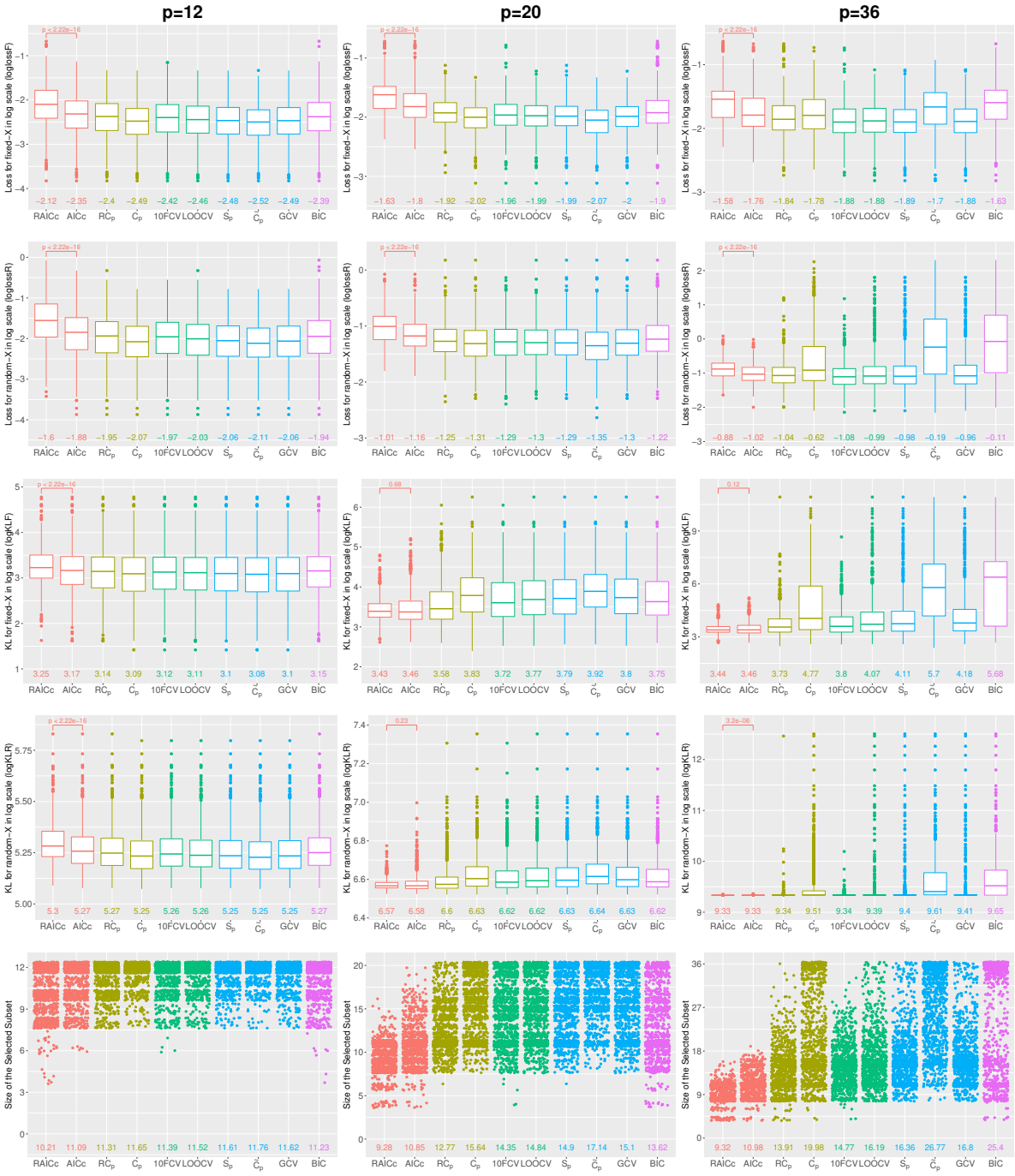

Figure S56: Variable selection, Fixed-X, Dense-Ex1, $n = 40$, high signal, and $\rho = 0.5$.

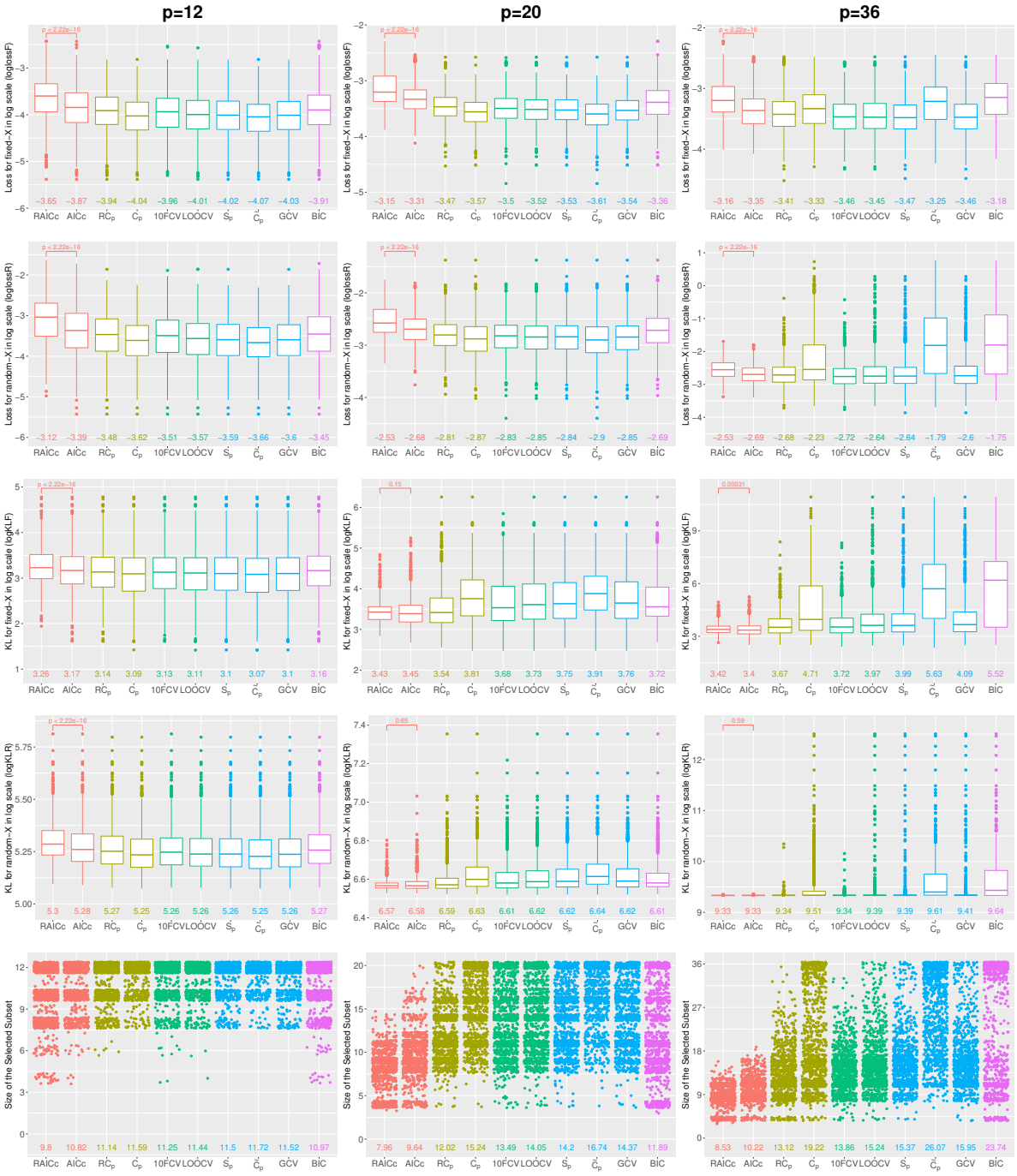

Figure S57: Variable selection, Fixed-X, Dense-Ex1, $n = 40$, high signal, and $\rho = 0.9$.

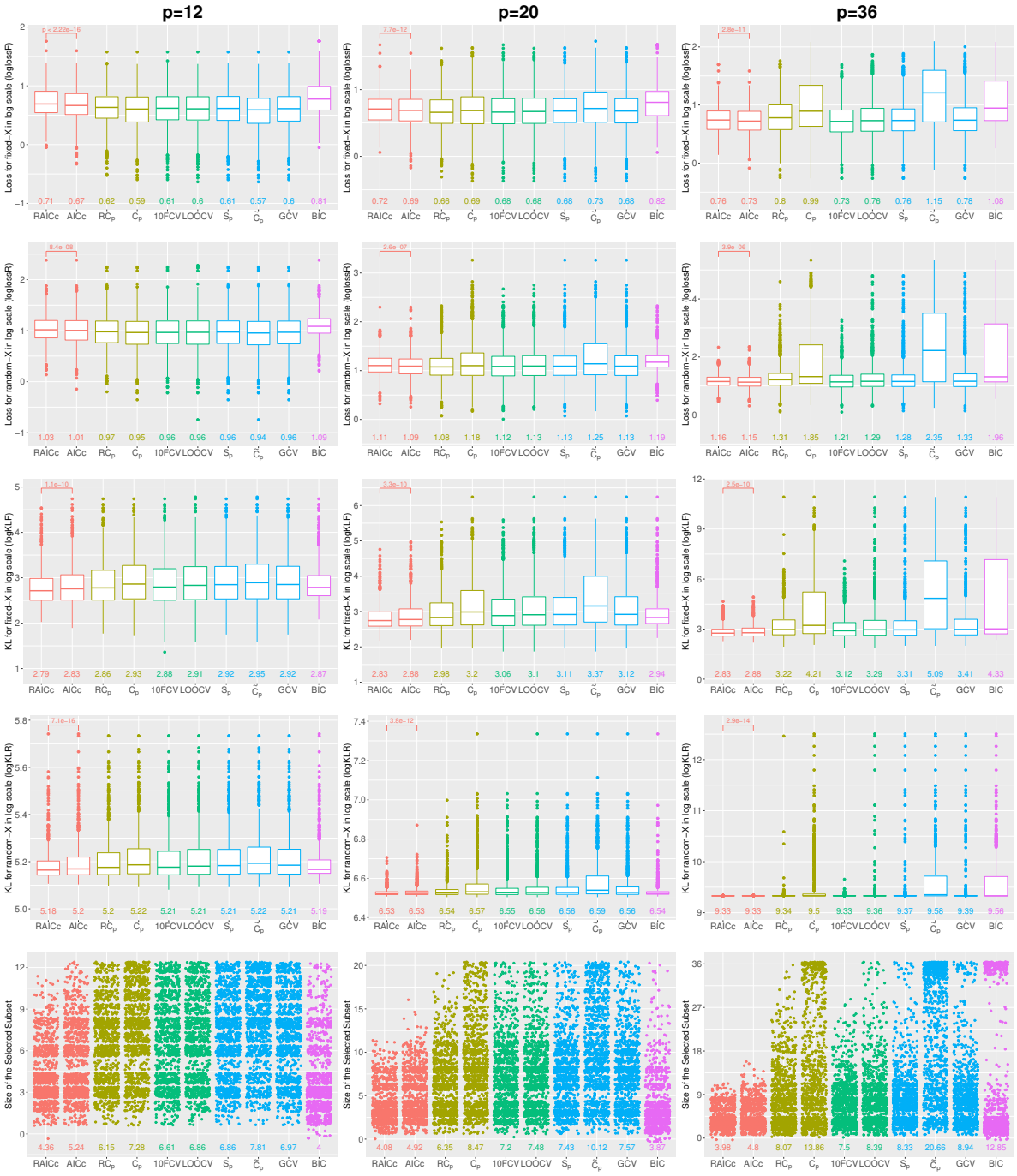

Figure S58: Variable selection, Fixed-X, Dense-Ex1, $n = 40$, medium signal, and $\rho = 0$.

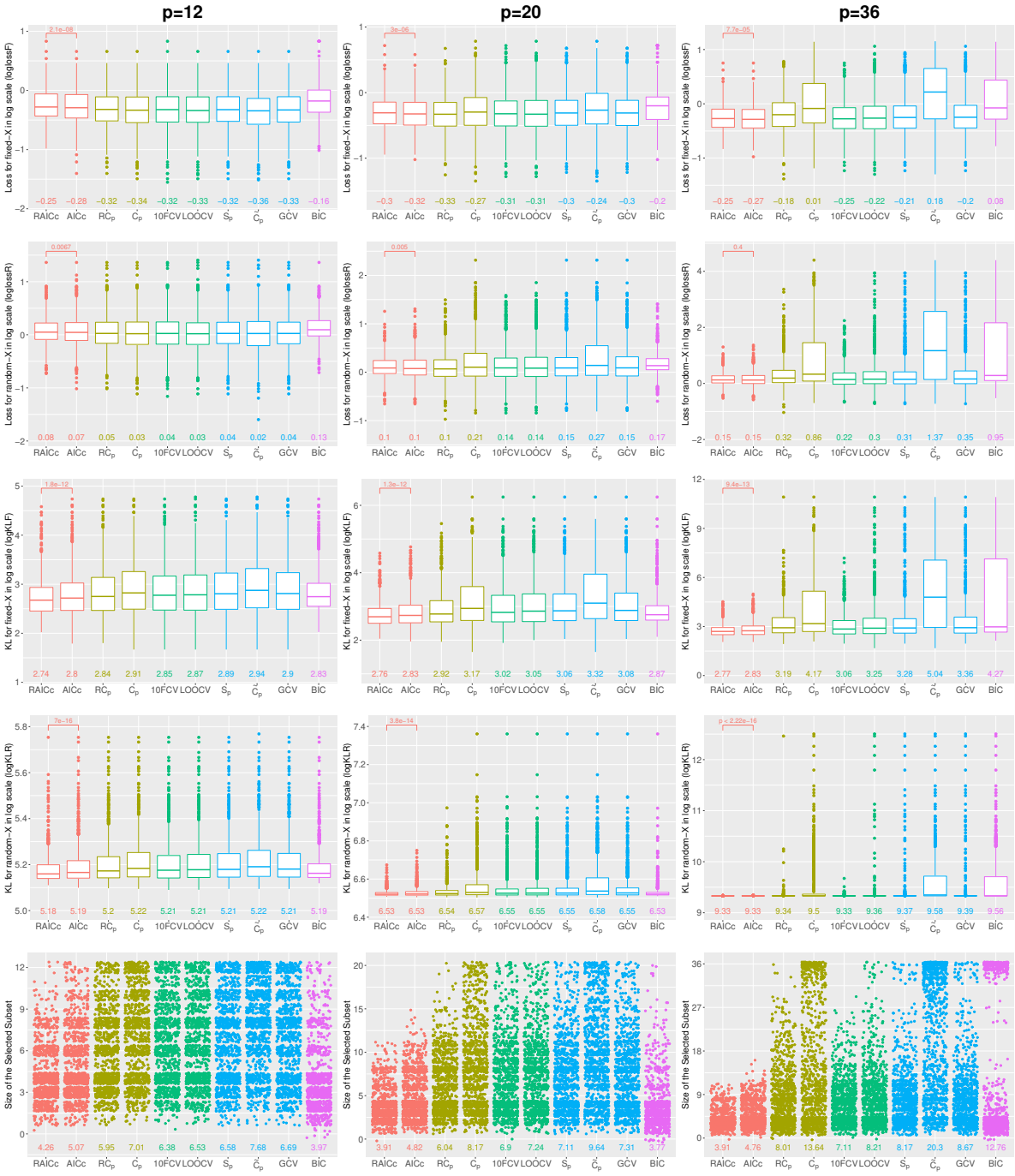

Figure S59: Variable selection, Fixed-X, Dense-Ex1, $n = 40$, medium signal, and $\rho = 0.5$.

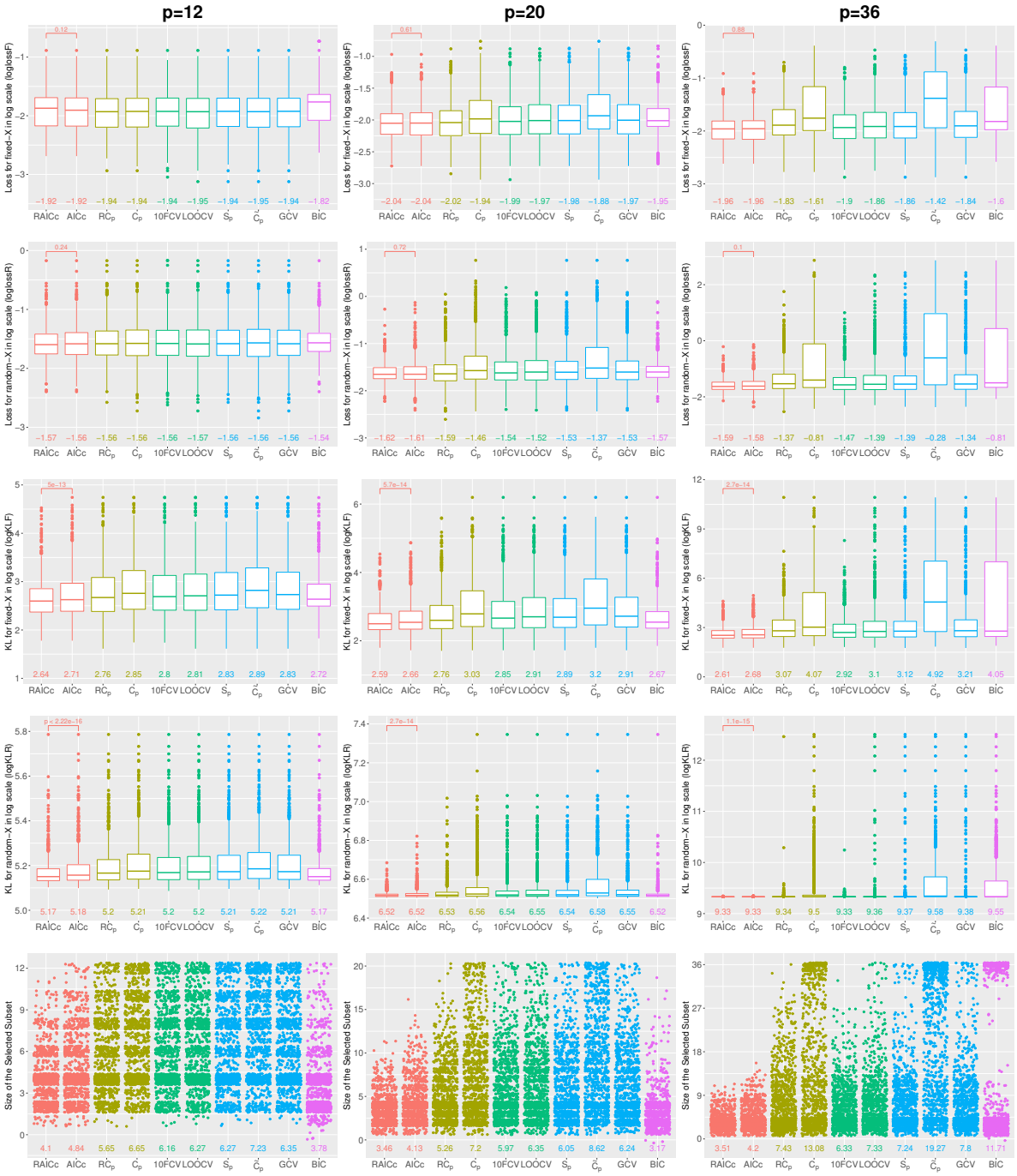

Figure S60: Variable selection, Fixed-X, Dense-Ex1, $n = 40$, medium signal, and $\rho = 0.9$.

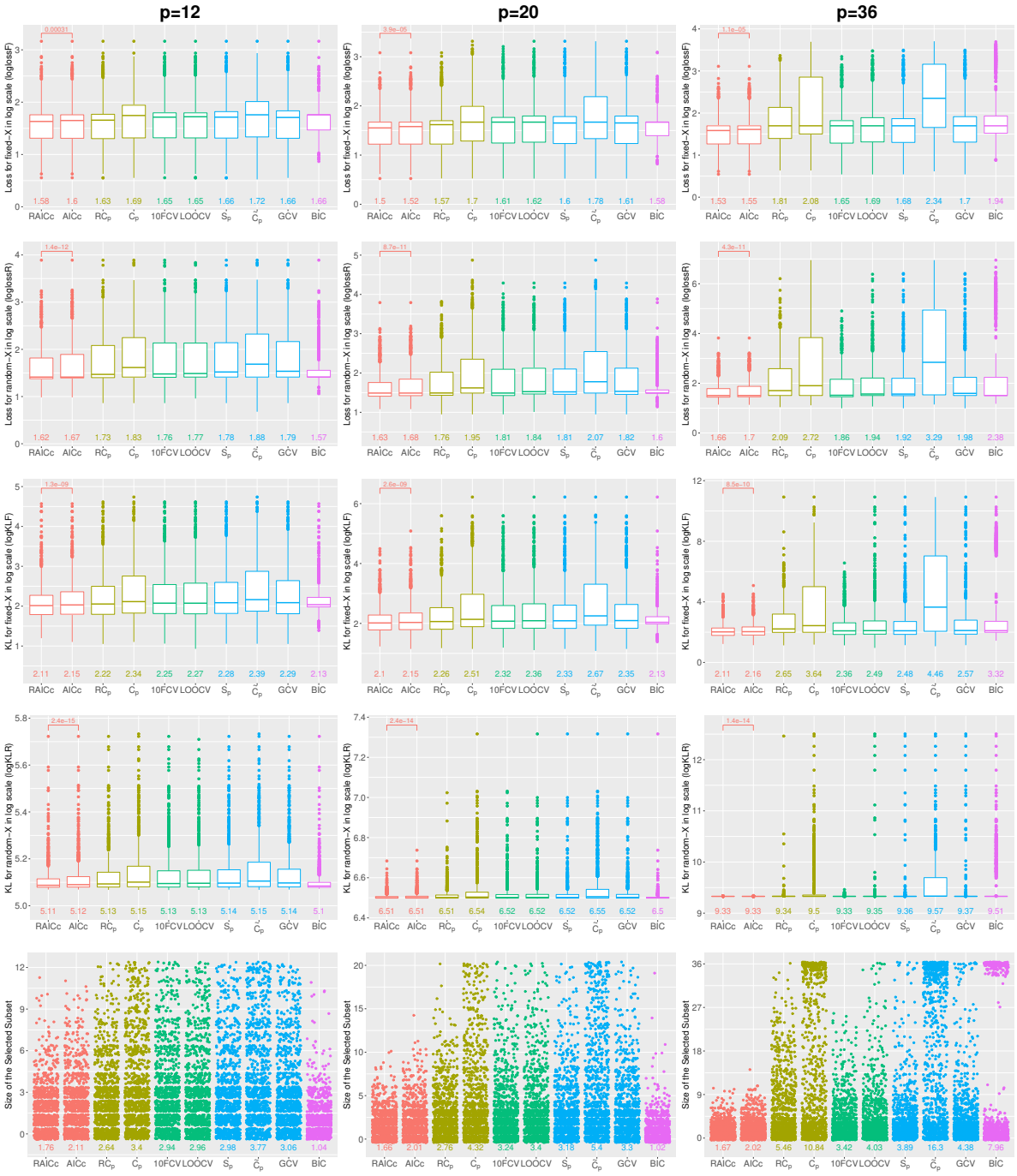

Figure S61: Variable selection, Fixed-X, Dense-Ex1, $n = 40$, low signal, and $\rho = 0$.

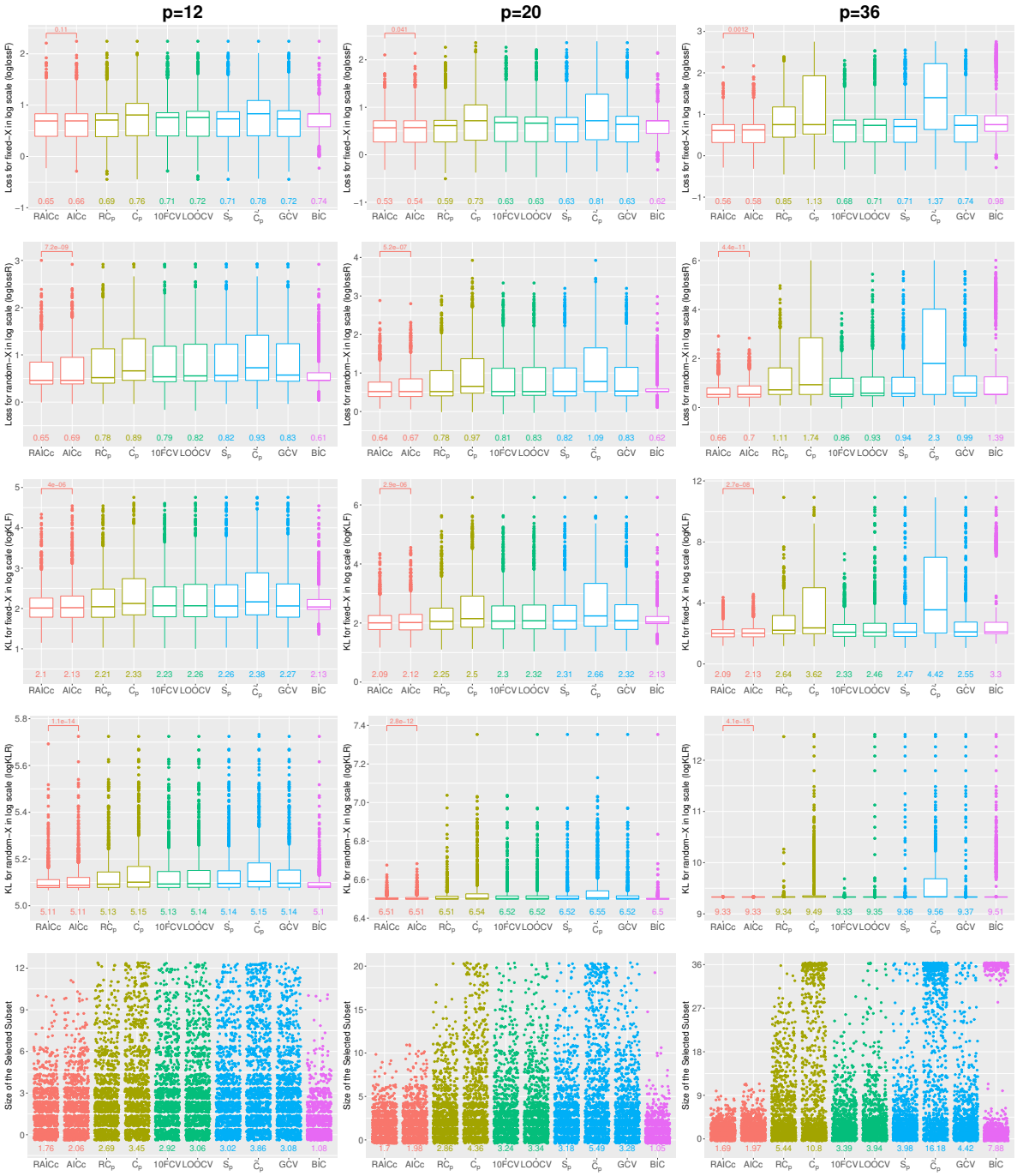

Figure S62: Variable selection, Fixed-X, Dense-Ex1, $n = 40$, low signal, and $\rho = 0.5$.

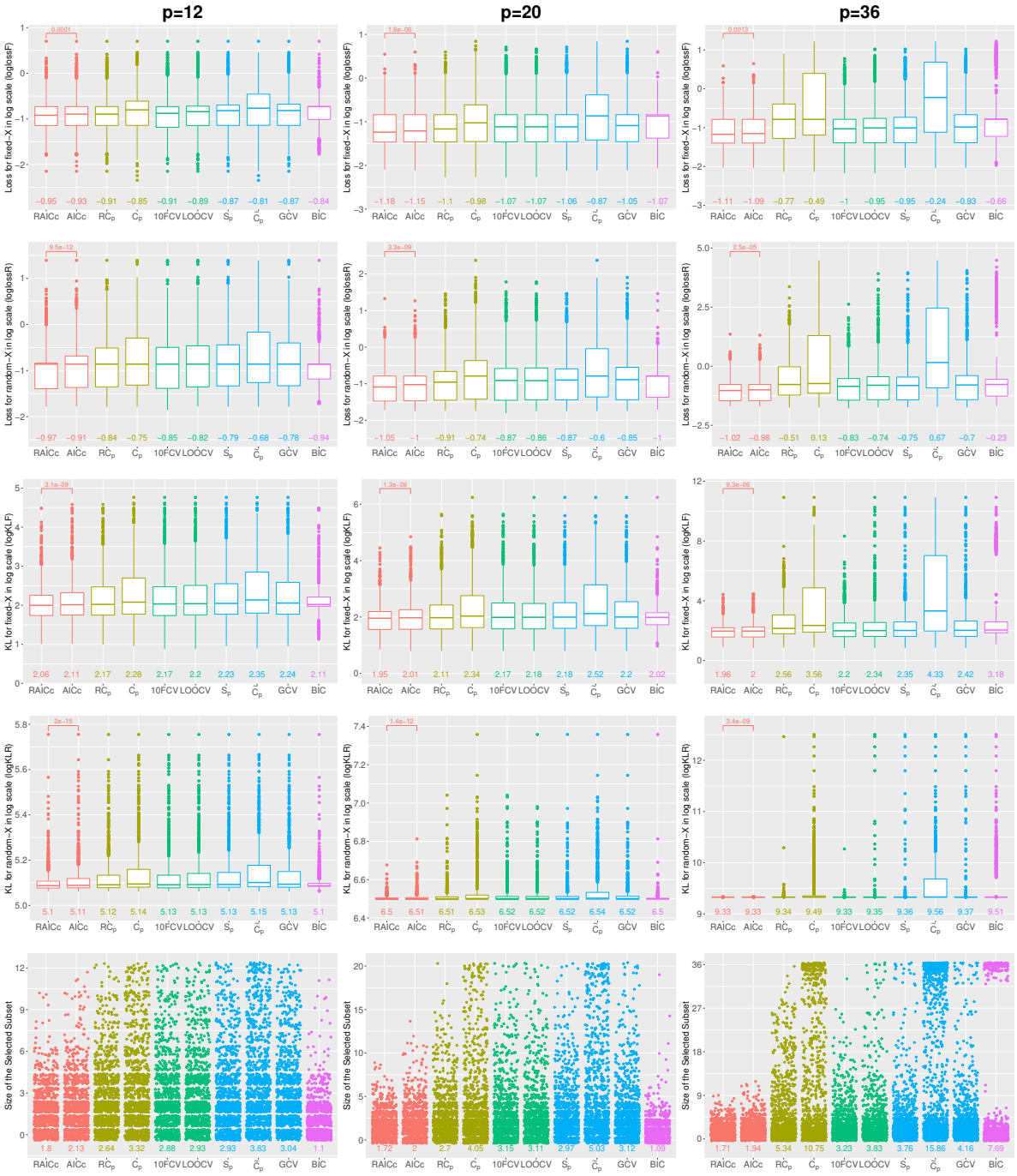

Figure S63: Variable selection, Fixed-X, Dense-Ex1, $n = 40$, low signal, and $\rho = 0.9$.

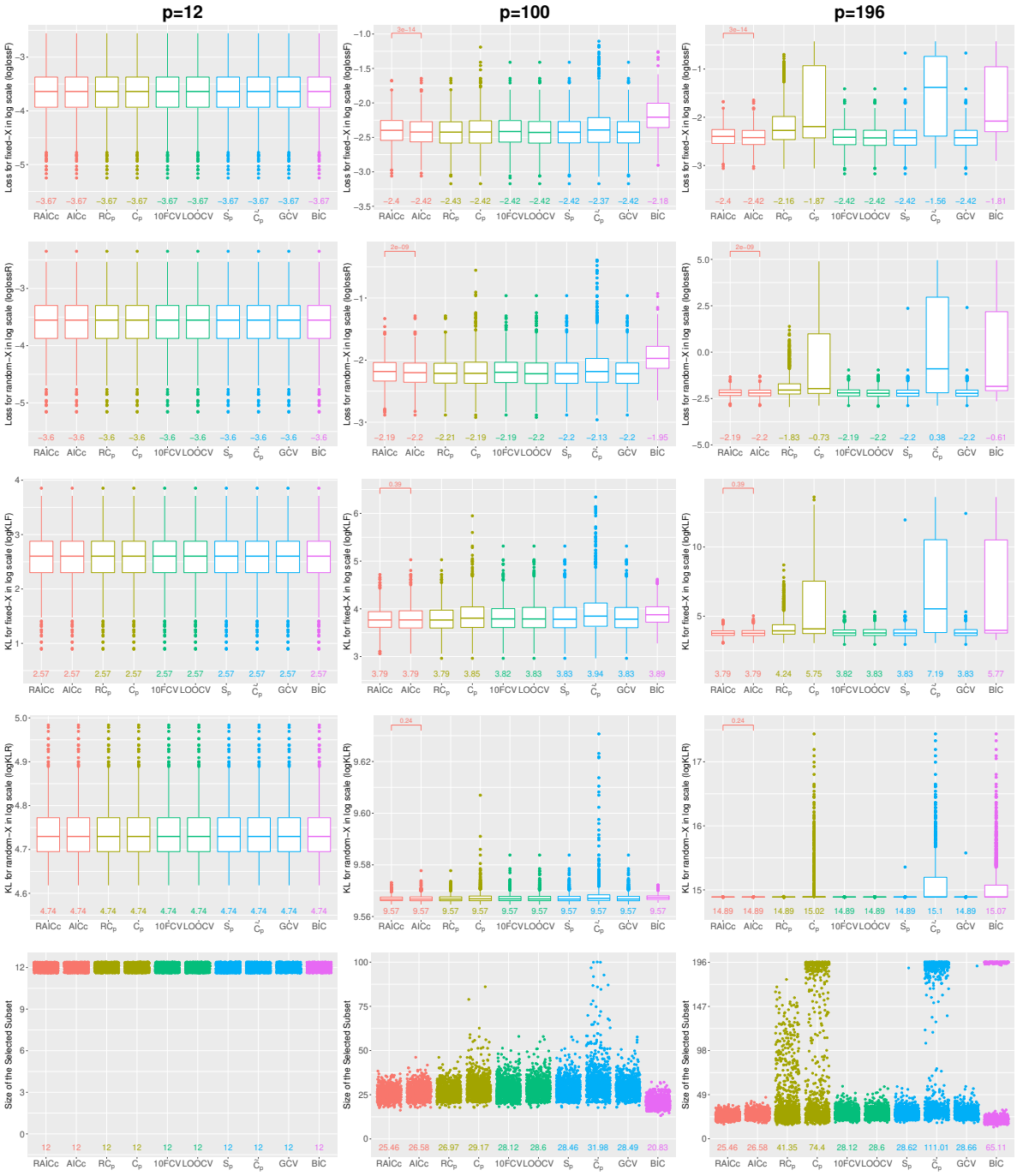

Figure S64: Variable selection, Fixed-X, Dense-Ex1, $n = 200$, high signal, and $\rho = 0$.

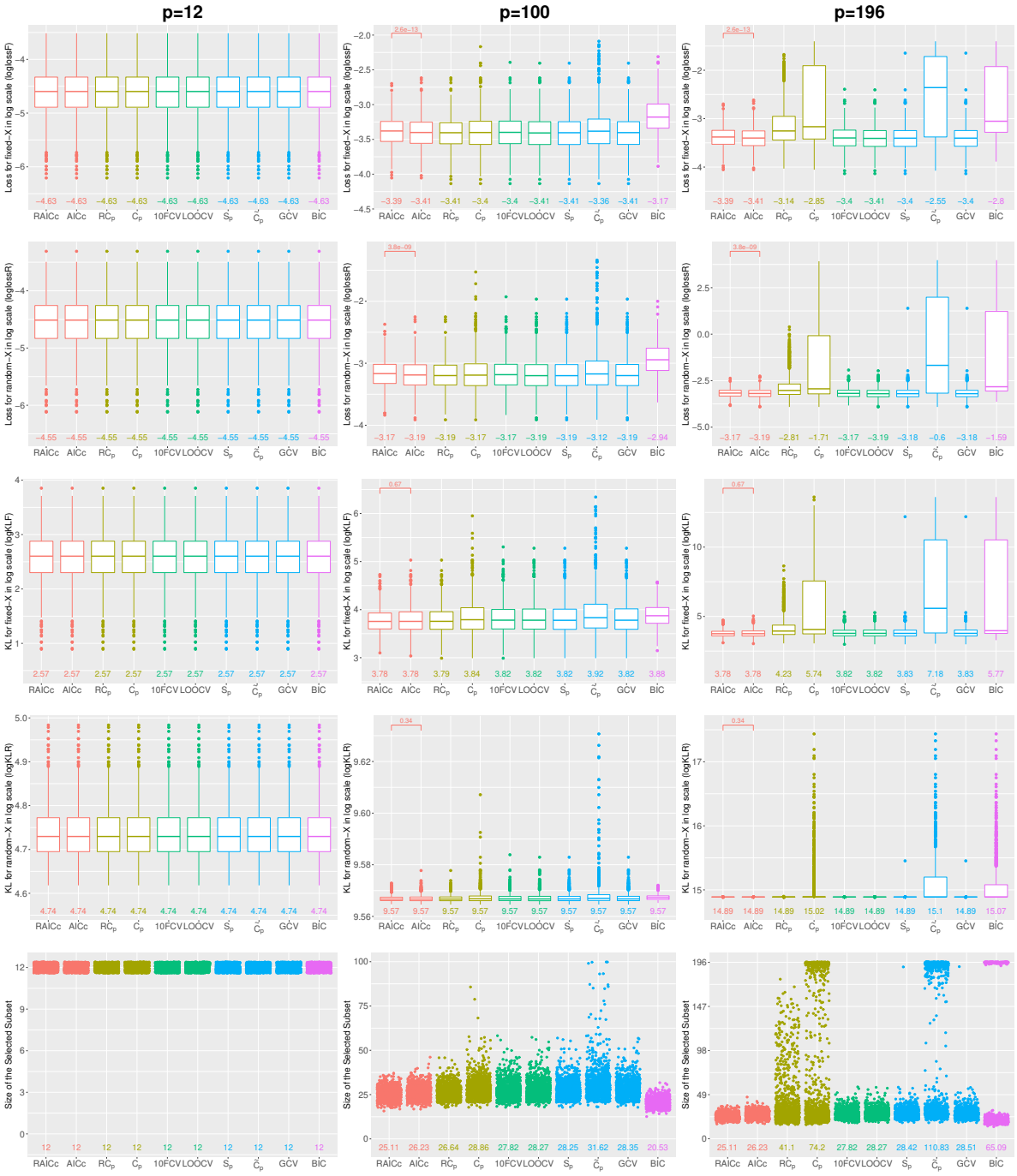

Figure S65: Variable selection, Fixed-X, Dense-Ex1, $n = 200$, high signal, and $\rho = 0.5$.

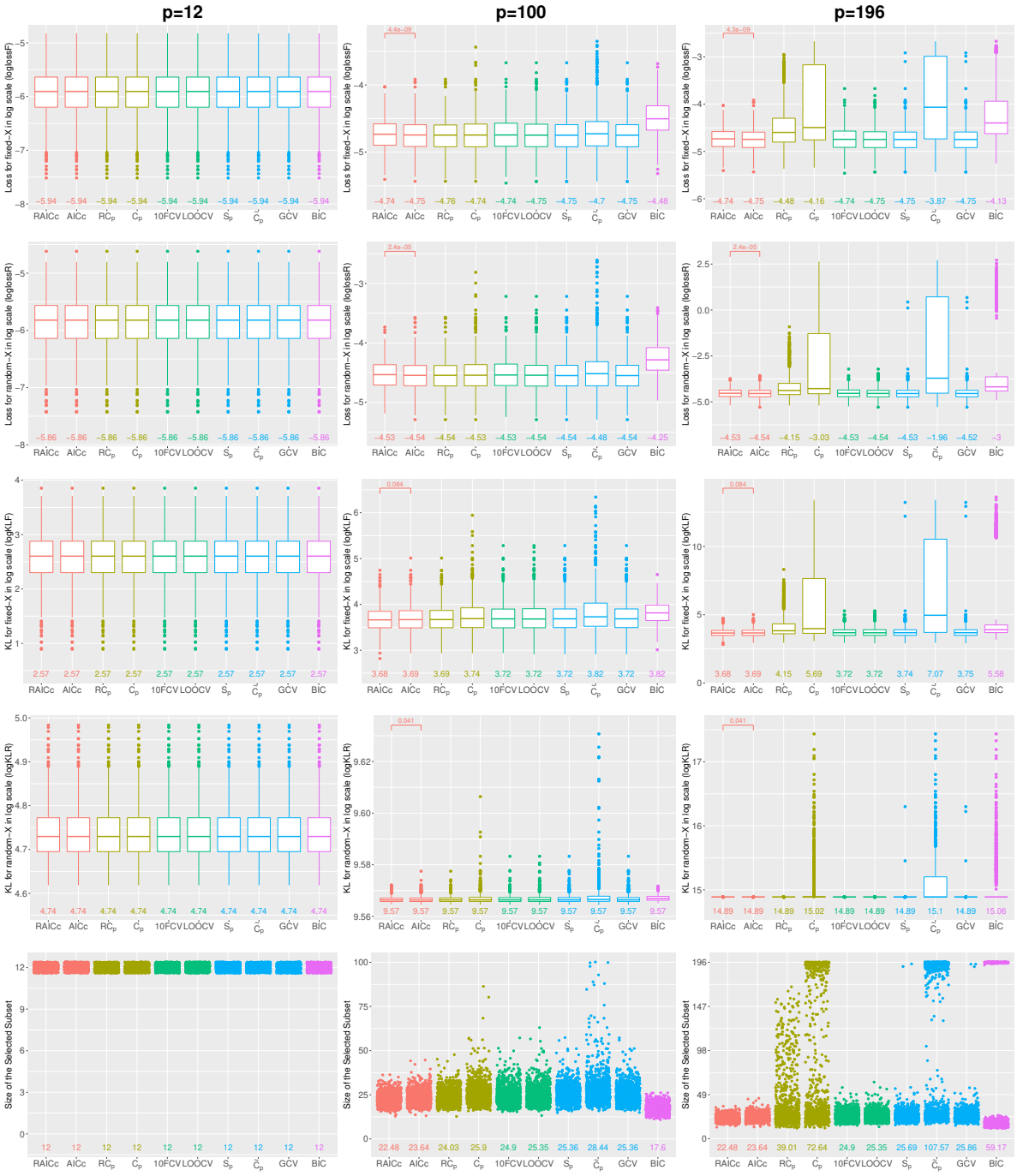

Figure S66: Variable selection, Fixed-X, Dense-Ex1, $n = 200$, high signal, and $\rho = 0.9$.

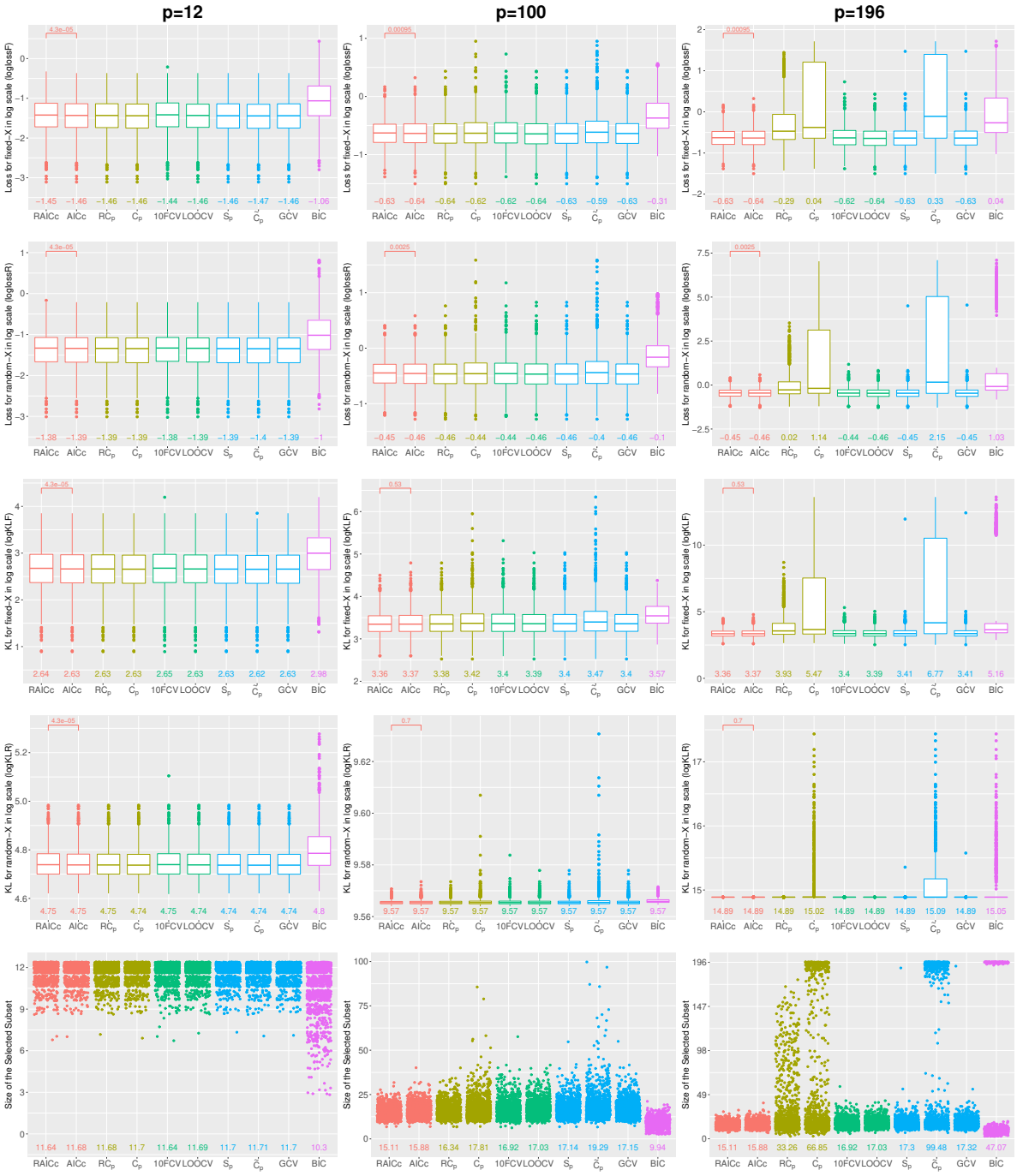

Figure S67: Variable selection, Fixed-X, Dense-Ex1, $n = 200$, medium signal, and $\rho = 0$.

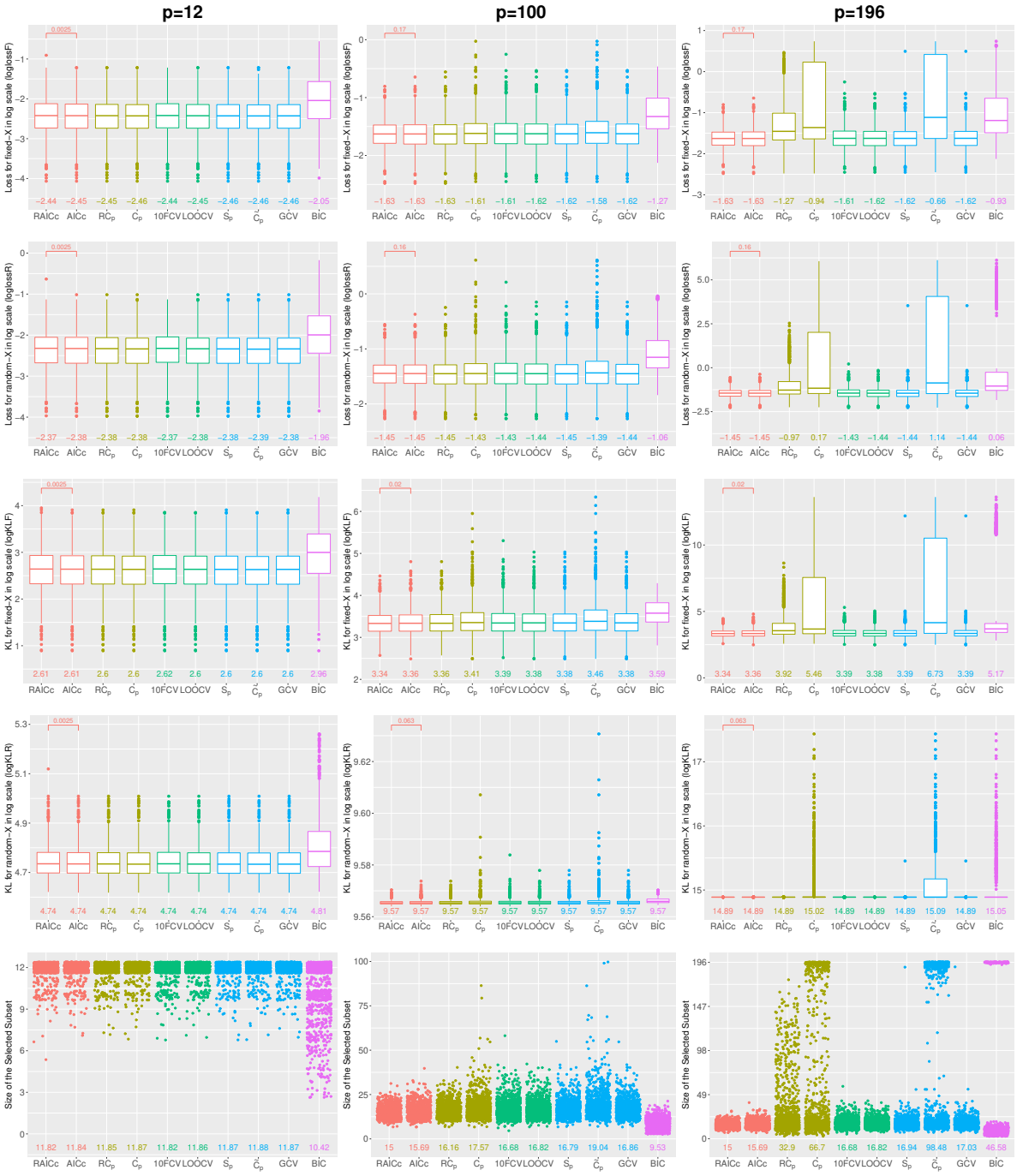

Figure S68: Variable selection, Fixed-X, Dense-Ex1, $n = 200$, medium signal, and $\rho = 0.5$.

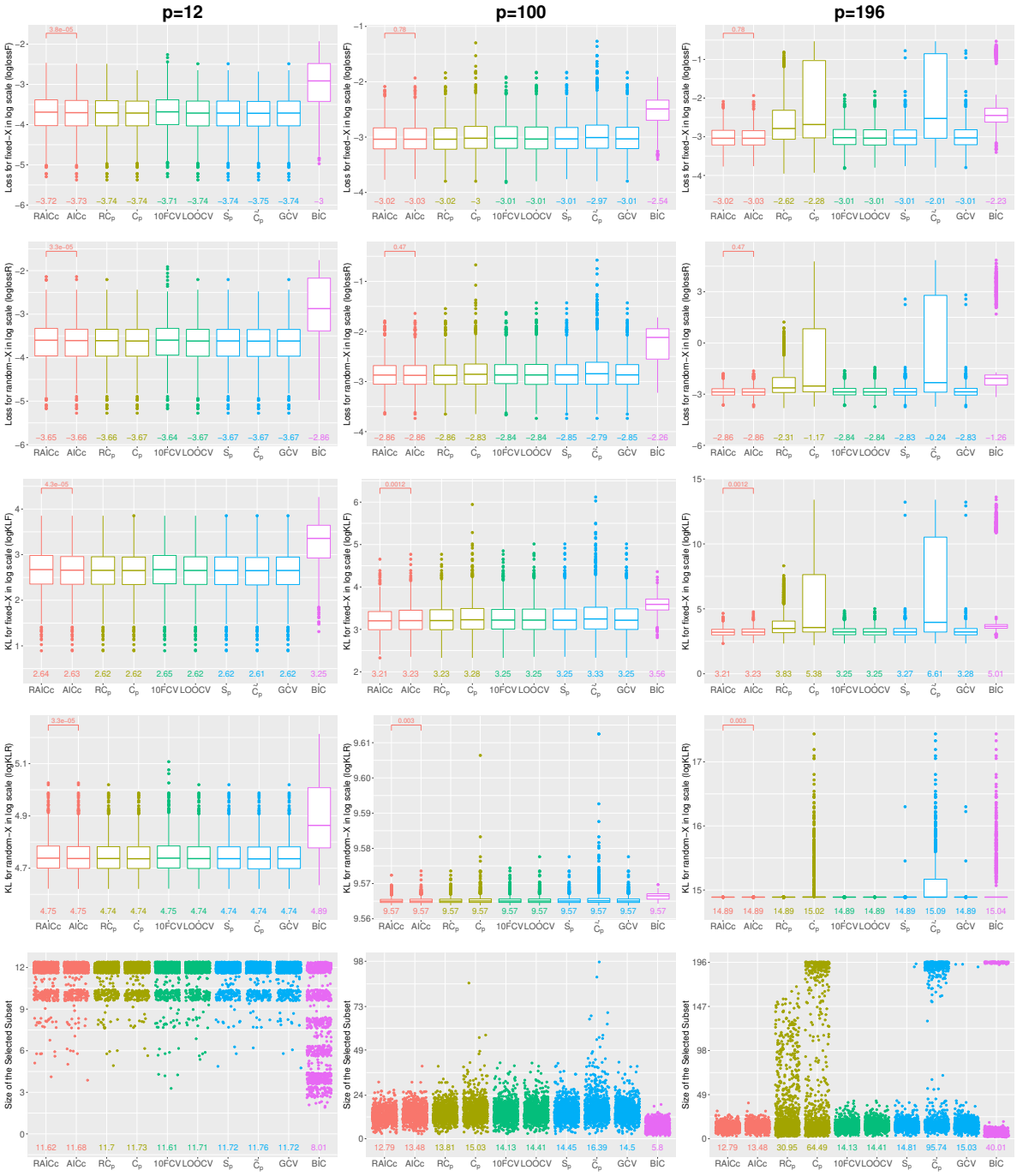

Figure S69: Variable selection, Fixed-X, Dense-Ex1, $n = 200$, medium signal, and $\rho = 0.9$.

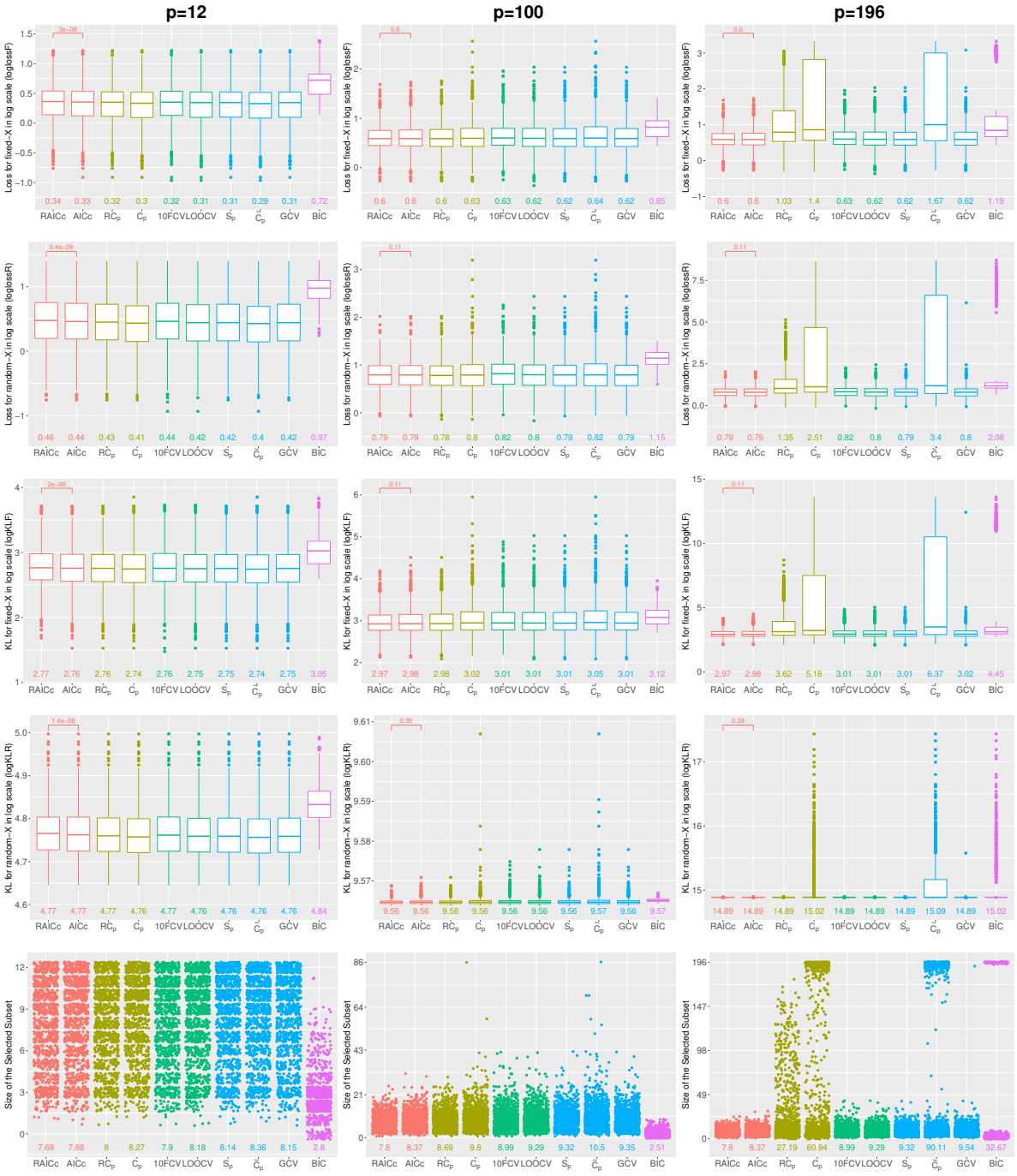

Figure S70: Variable selection, Fixed-X, Dense-Ex1, $n = 200$, low signal, and $\rho = 0$.

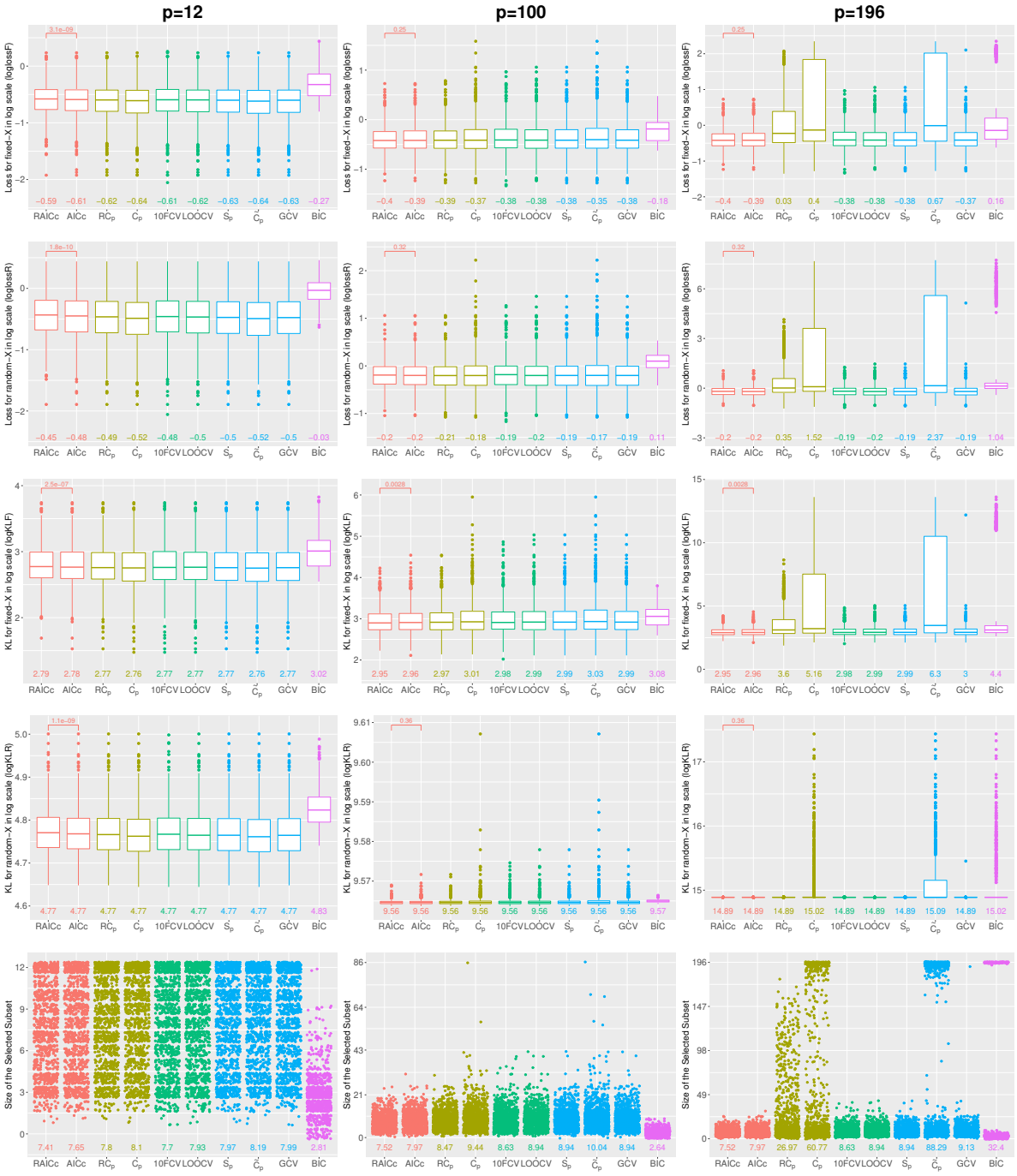

Figure S71: Variable selection, Fixed-X, Dense-Ex1, $n = 200$, low signal, and $\rho = 0.5$.

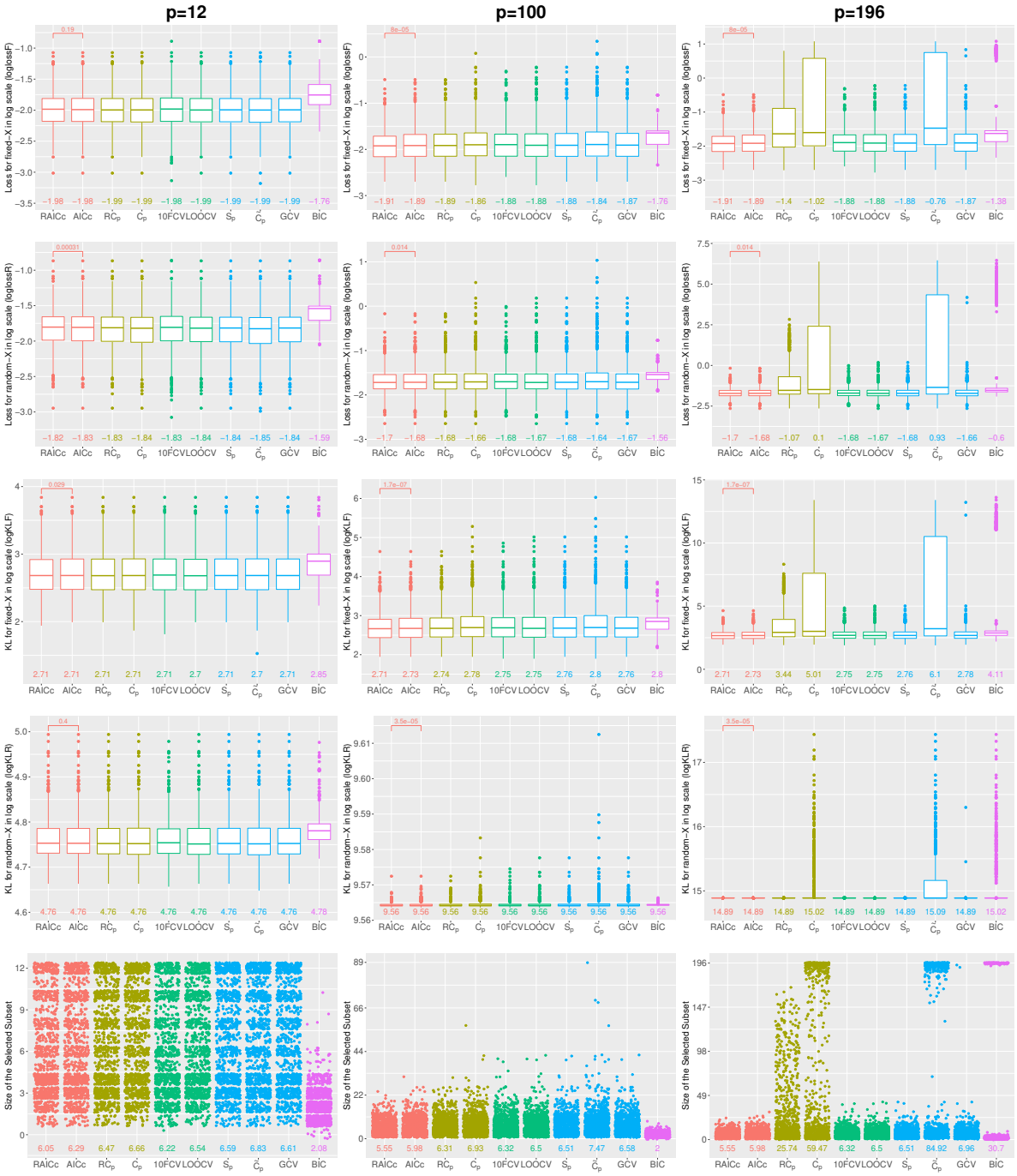

Figure S72: Variable selection, Fixed-X, Dense-Ex1, $n = 200$, low signal, and $\rho = 0.9$.

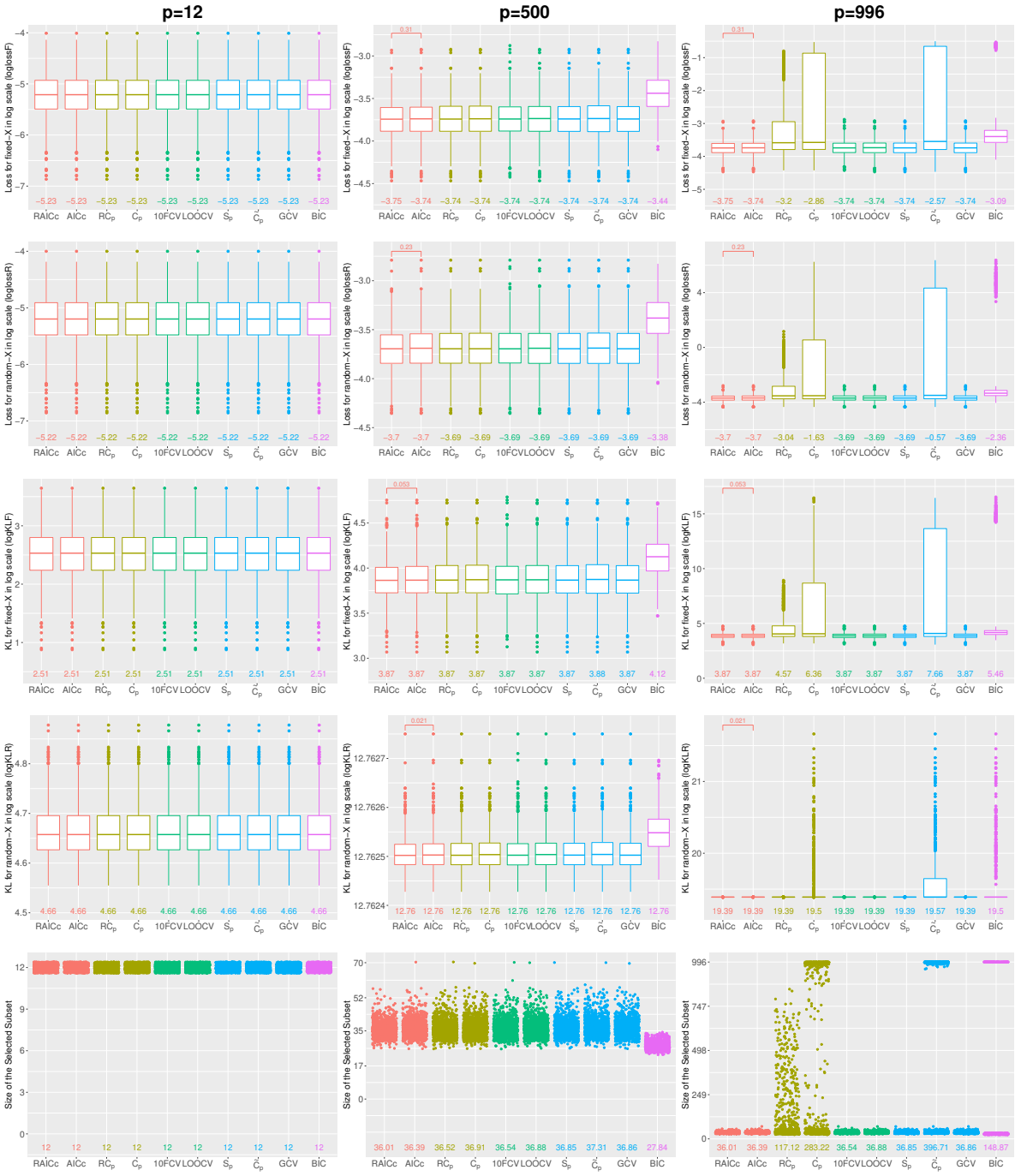

Figure S73: Variable selection, Fixed-X, Dense-Ex1, $n = 1000$, high signal, and $\rho = 0$.

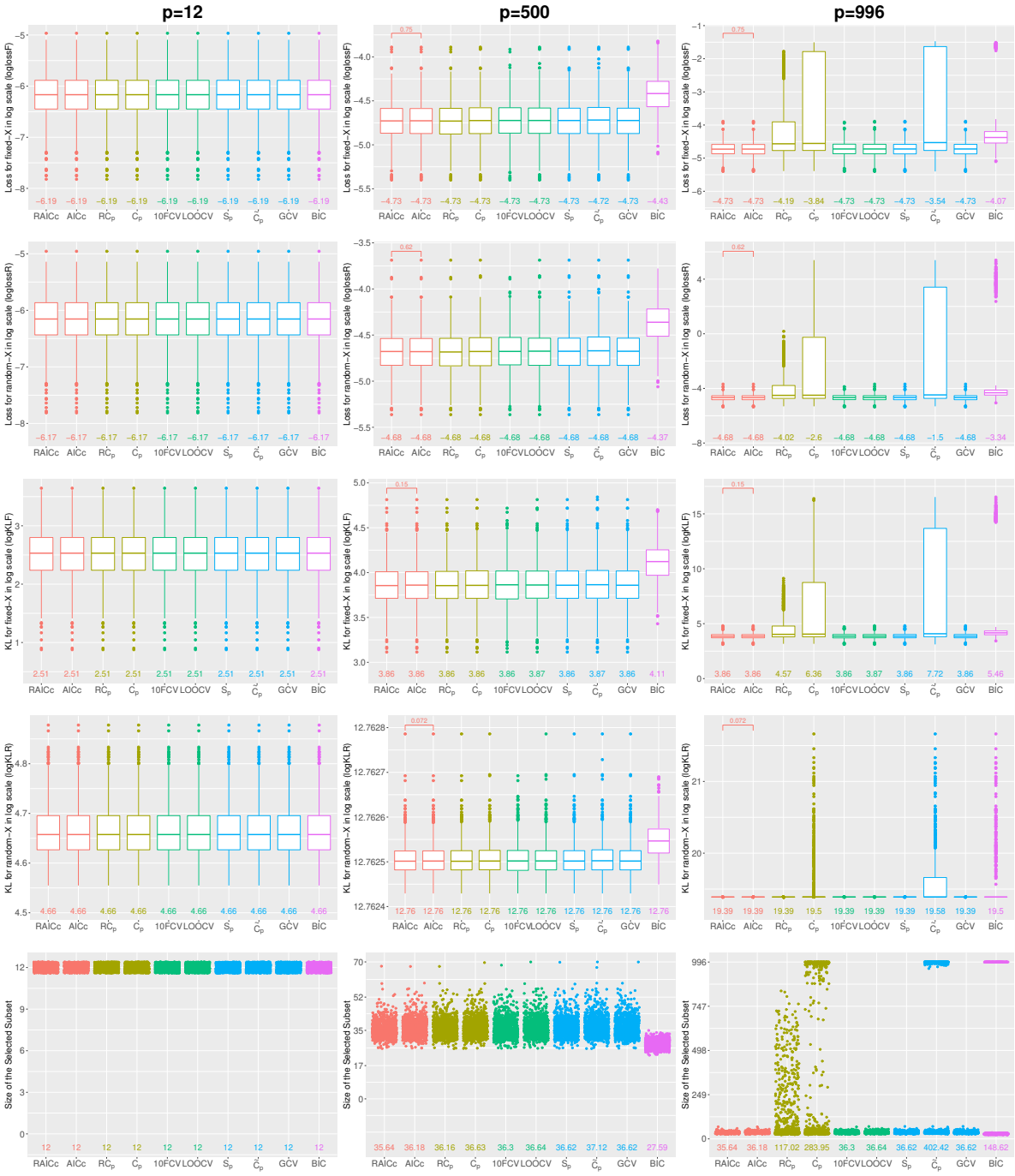

Figure S74: Variable selection, Fixed-X, Dense-Ex1, $n = 1000$, high signal, and $\rho = 0.5$.

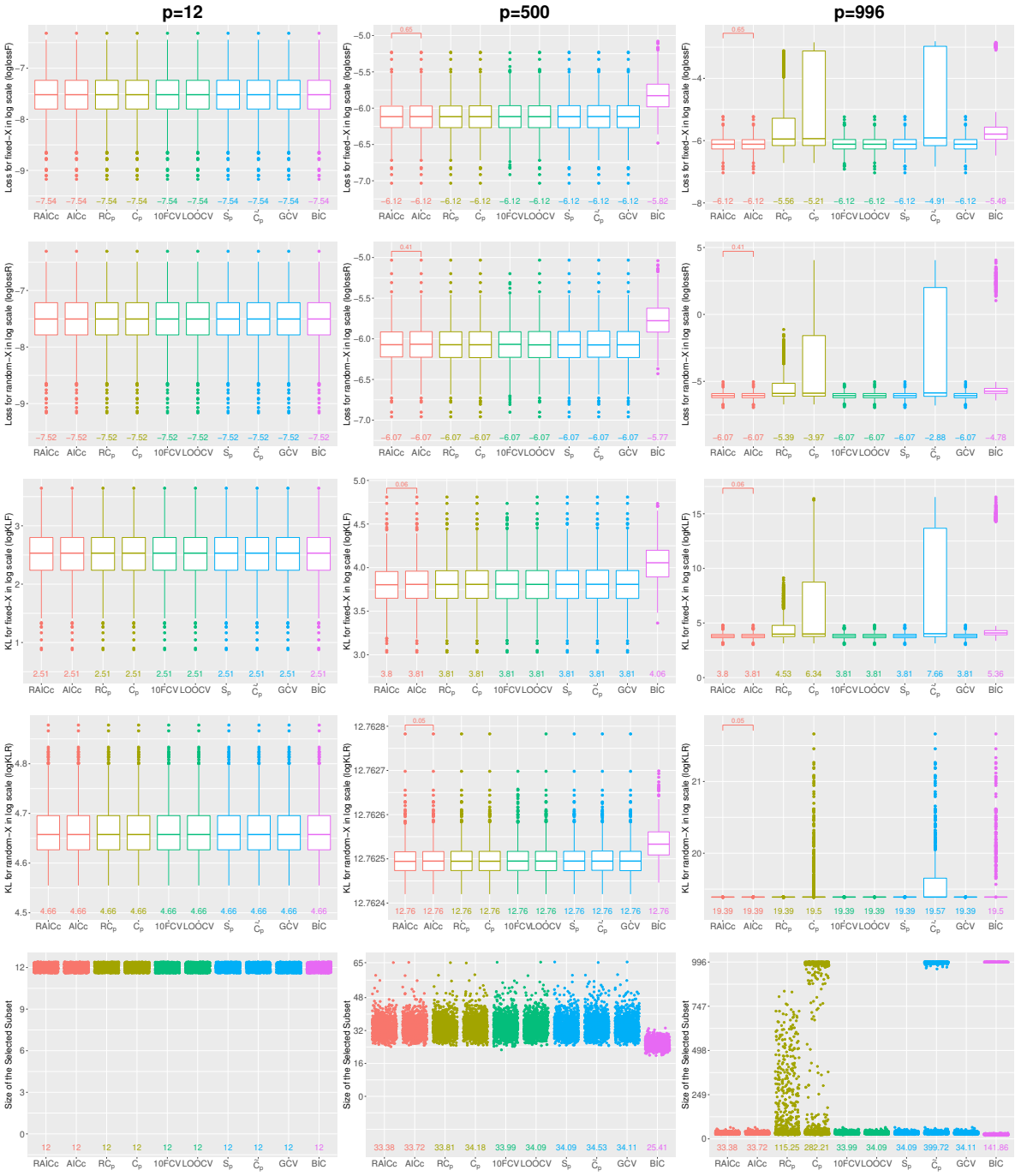

Figure S75: Variable selection, Fixed-X, Dense-Ex1, $n = 1000$, high signal, and $\rho = 0.9$.

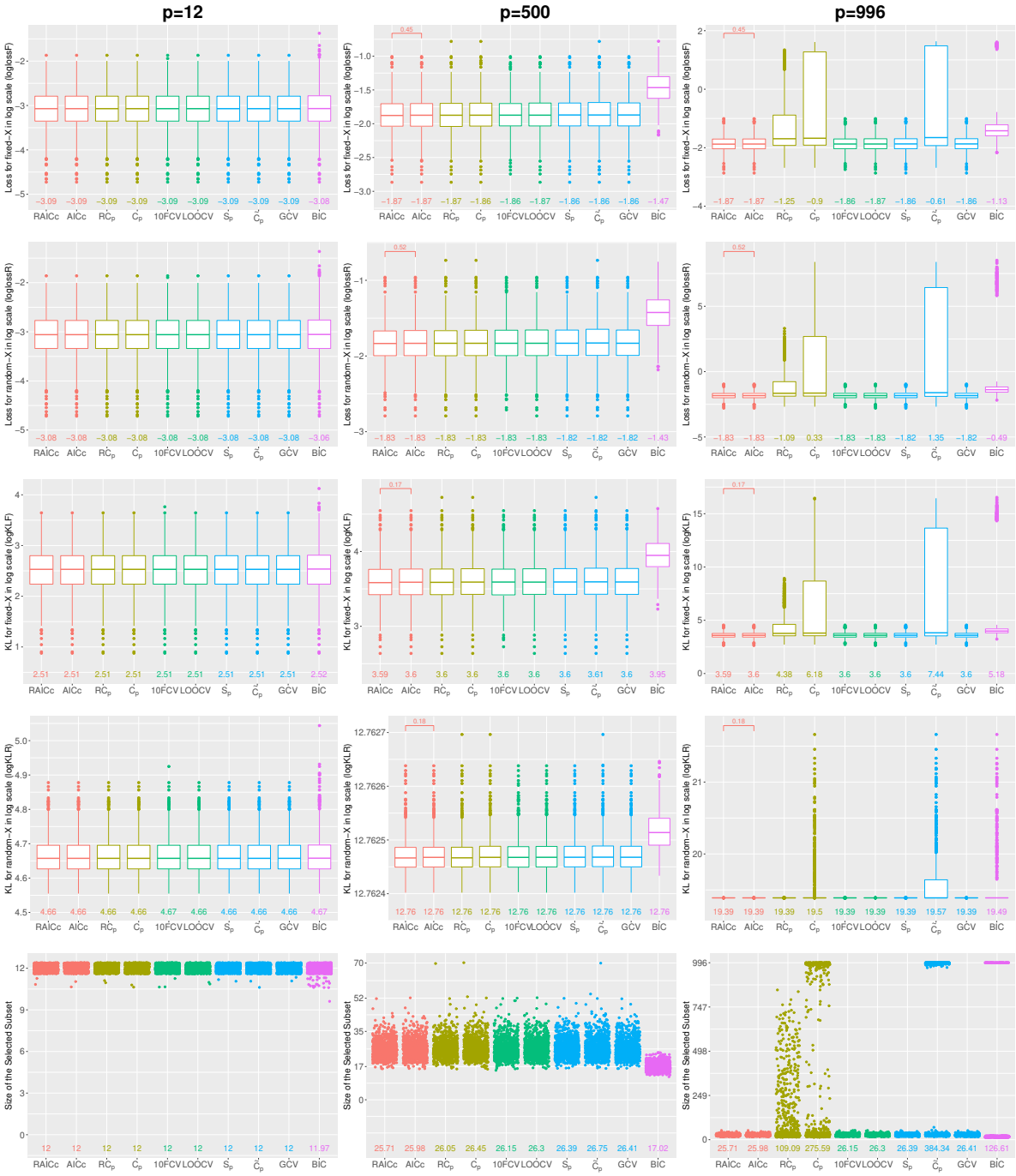

Figure S76: Variable selection, Fixed-X, Dense-Ex1, $n = 1000$, medium signal, and $\rho = 0$.

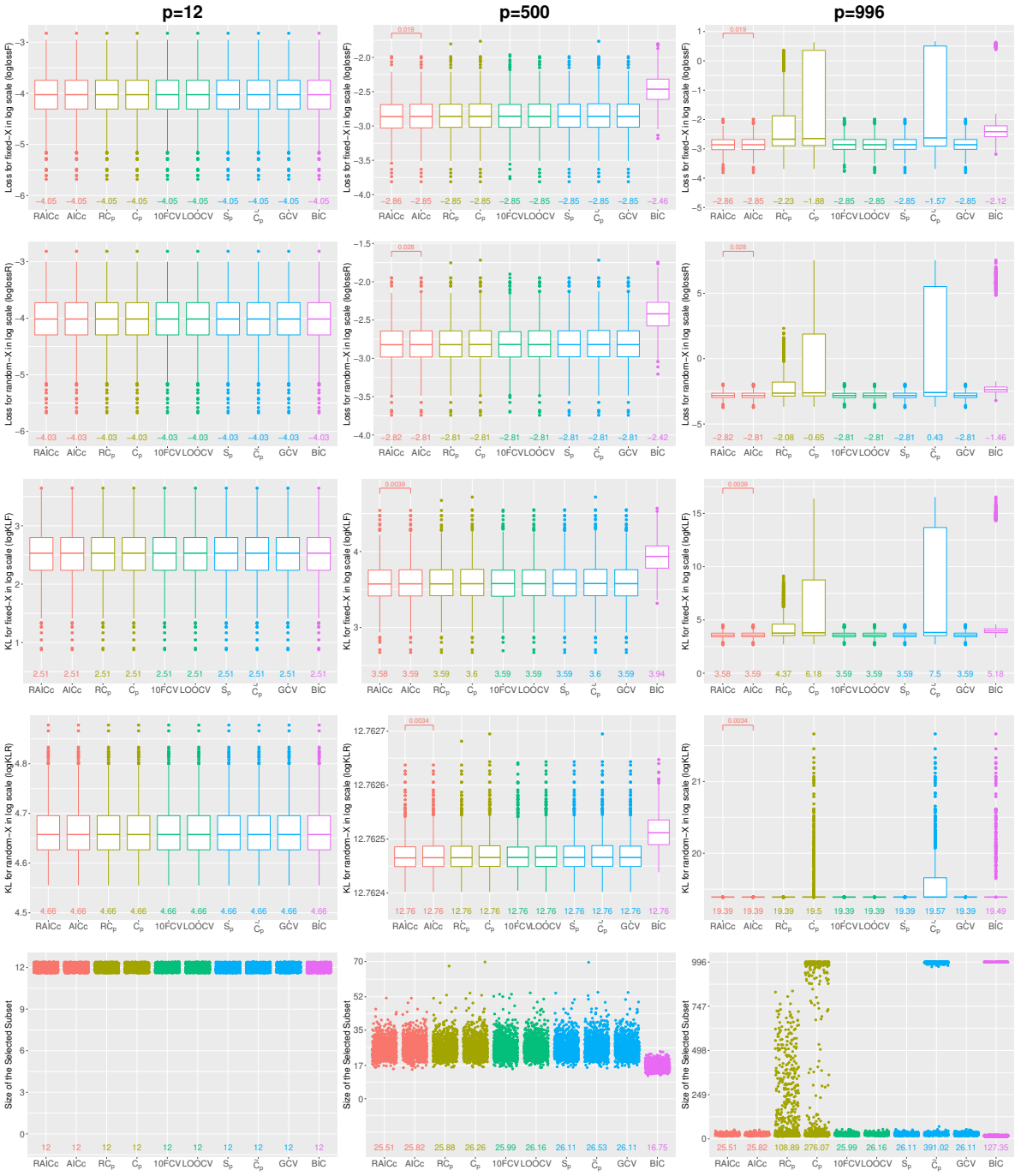

Figure S77: Variable selection, Fixed-X, Dense-Ex1, $n = 1000$, medium signal, and $\rho = 0.5$.

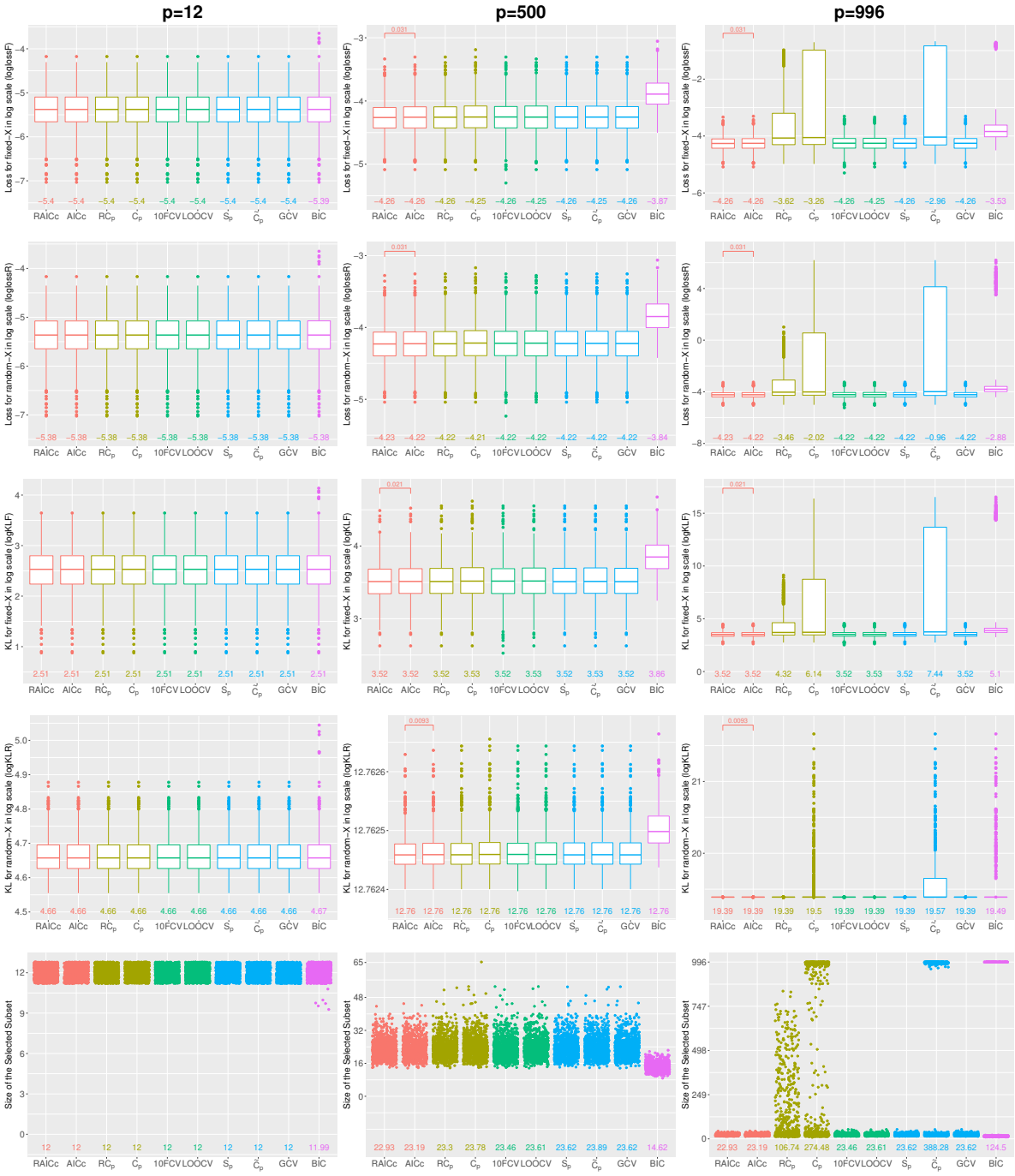

Figure S78: Variable selection, Fixed-X, Dense-Ex1, $n = 1000$, medium signal, and $\rho = 0.9$.

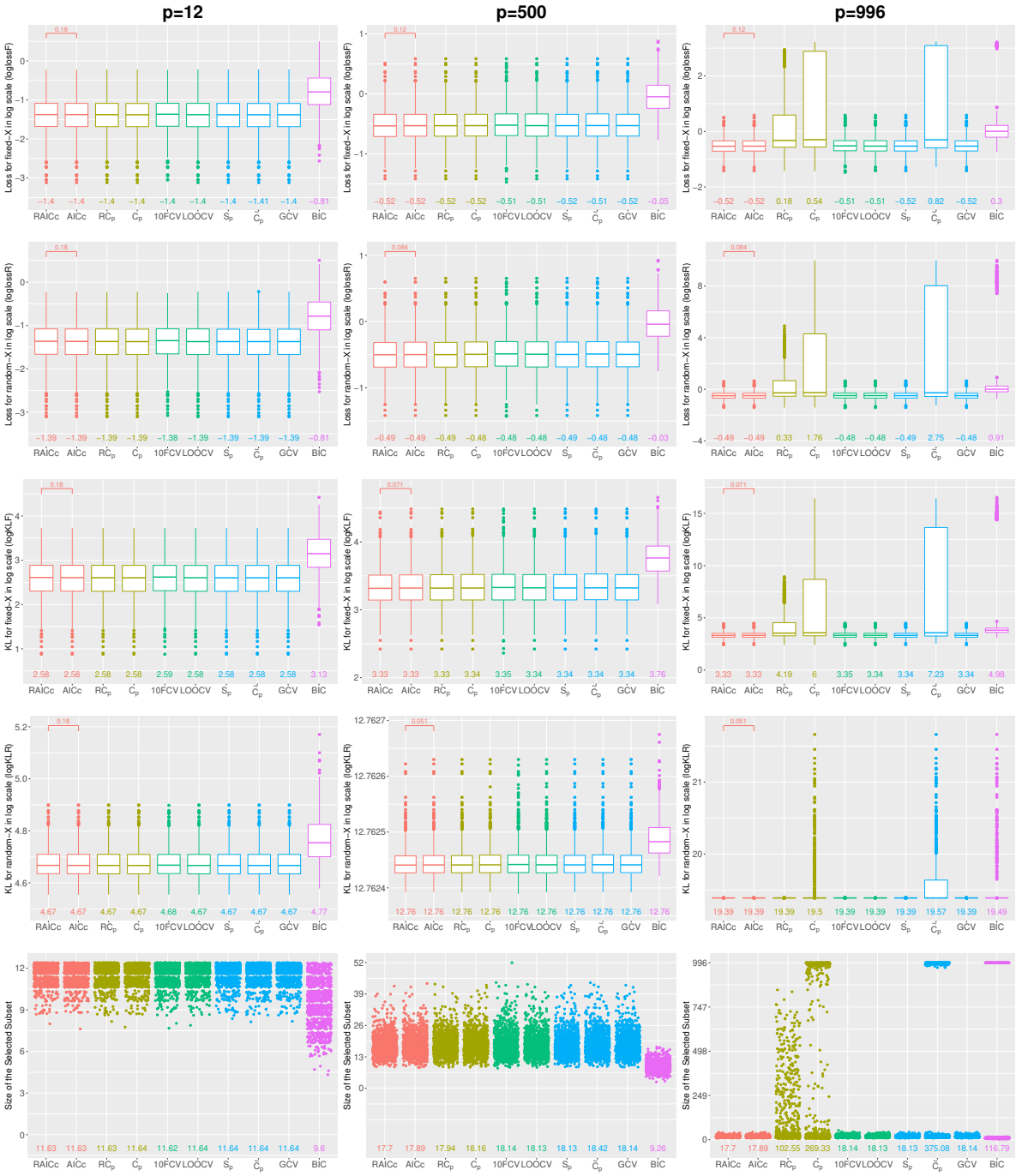

Figure S79: Variable selection, Fixed-X, Dense-Ex1, $n = 1000$, low signal, and $\rho = 0$.

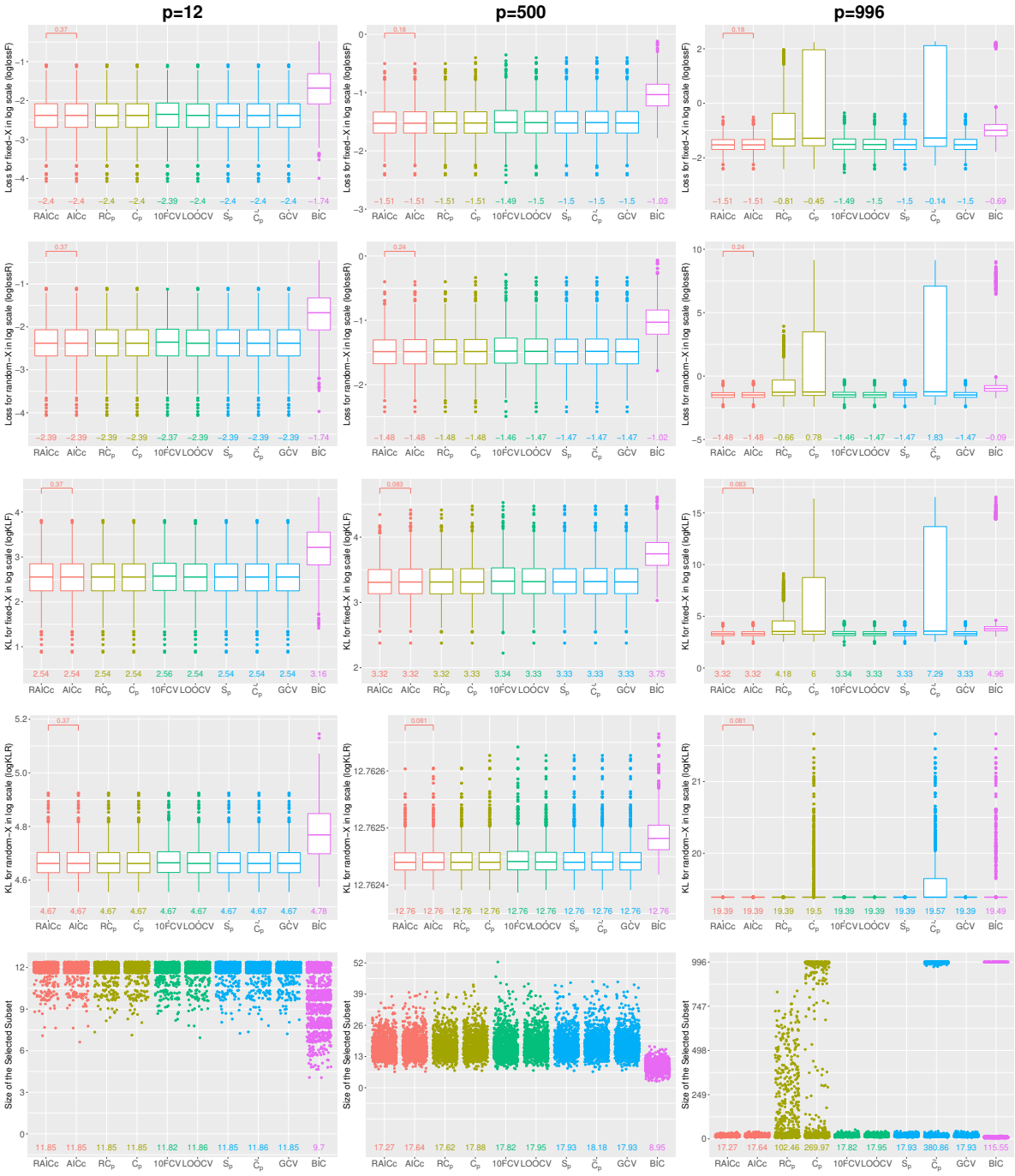

Figure S80: Variable selection, Fixed-X, Dense-Ex1, $n = 1000$, low signal, and $\rho = 0.5$.

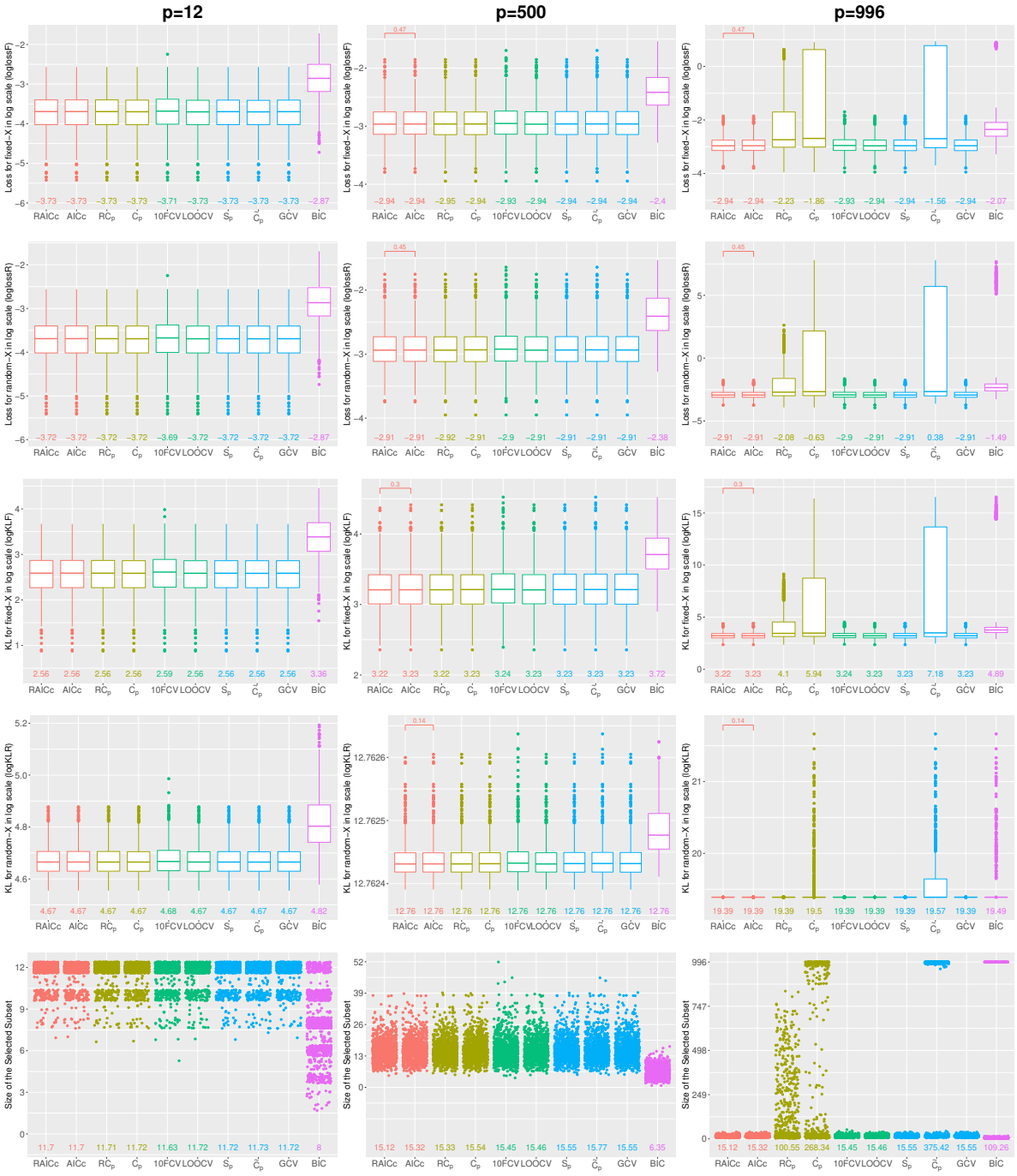

Figure S81: Variable selection, Fixed-X, Dense-Ex1, $n = 1000$, low signal, and $\rho = 0.9$.

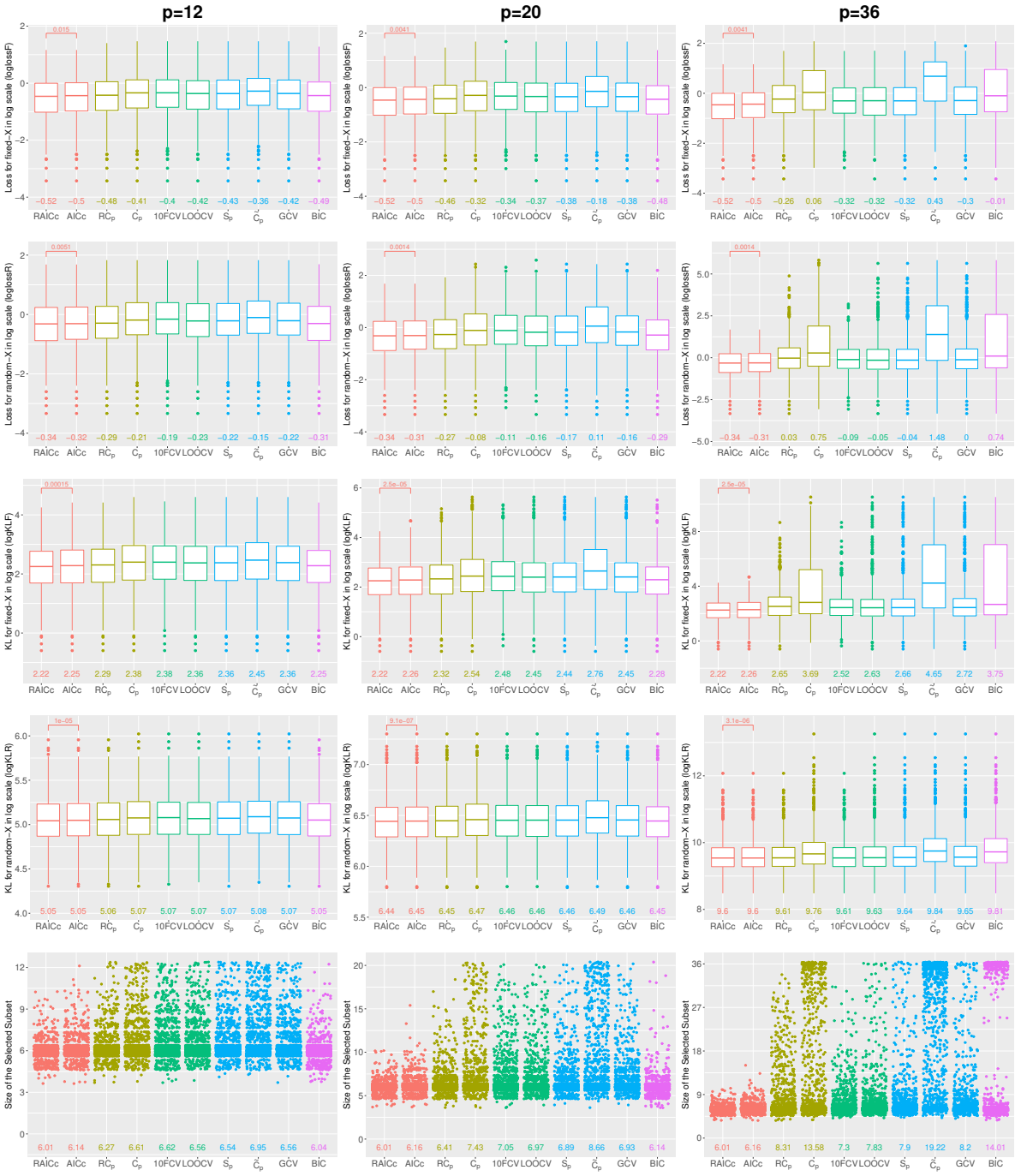

Figure S82: Variable selection, Random-X, Sparse-Ex1, $n = 40$, high signal, and $\rho = 0$.

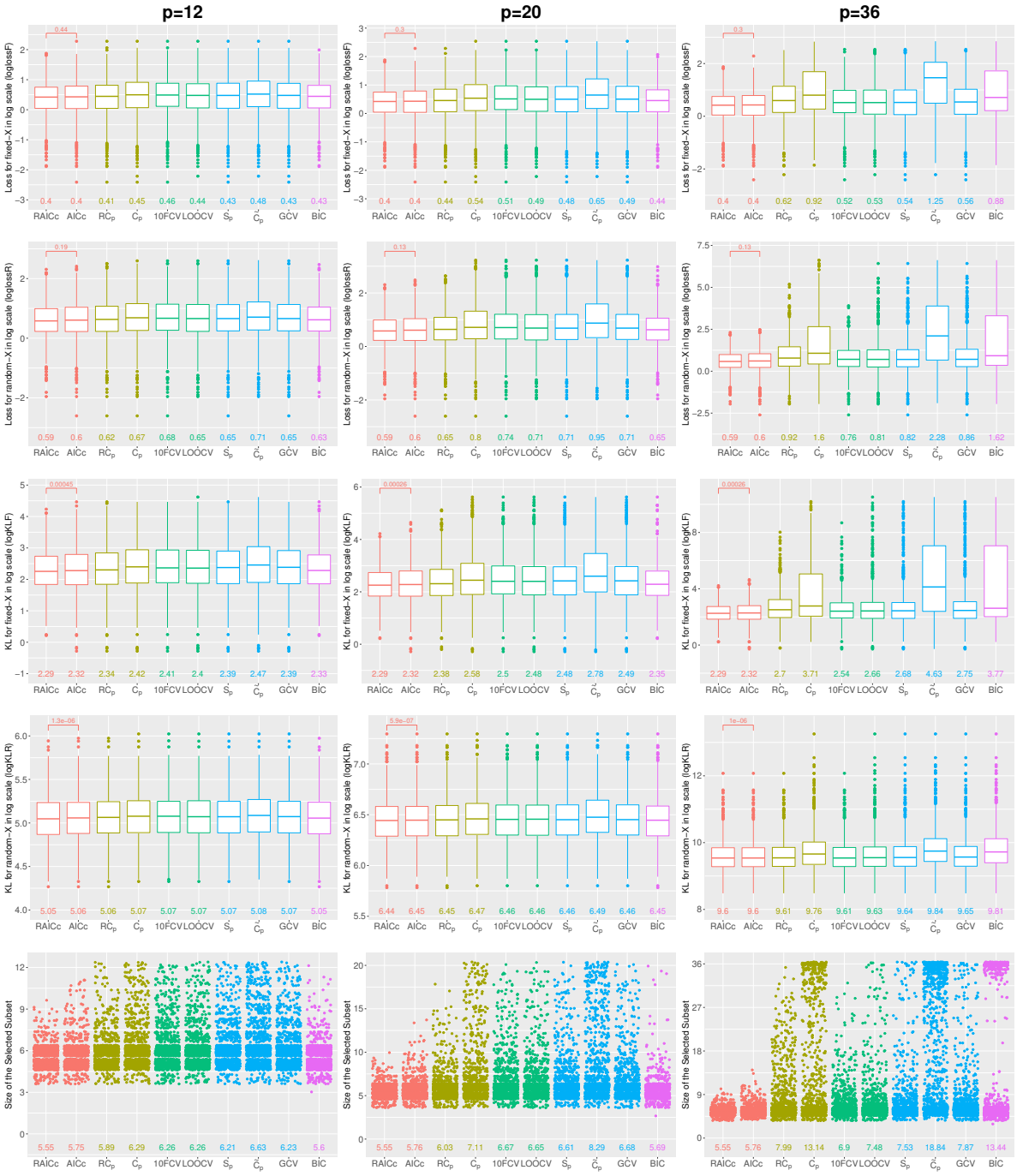

Figure S83: Variable selection, Random-X, Sparse-Ex1, $n = 40$, high signal, and $\rho = 0.5$.

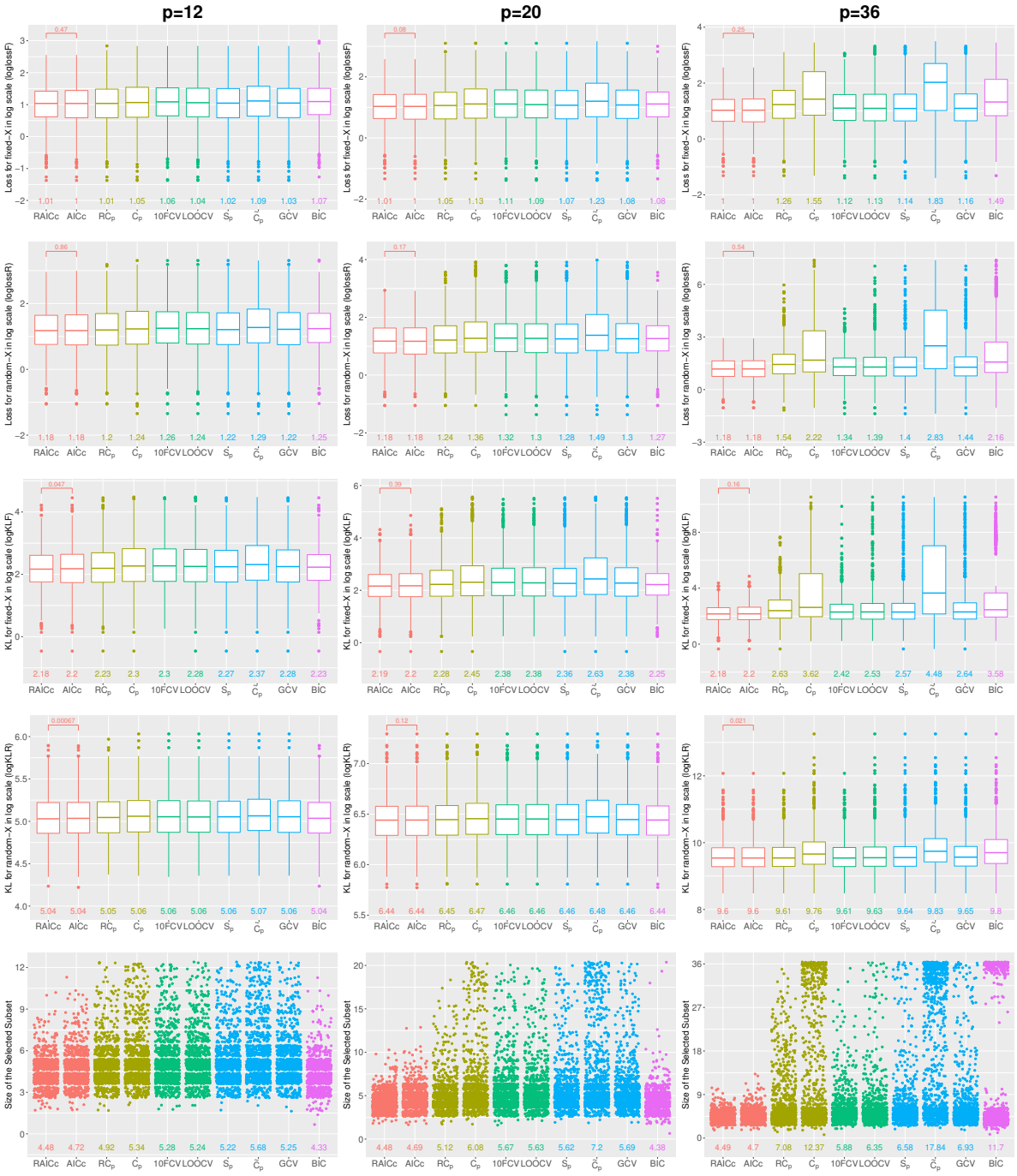

Figure S84: Variable selection, Random-X, Sparse-Ex1, $n = 40$, high signal, and $\rho = 0.9$.

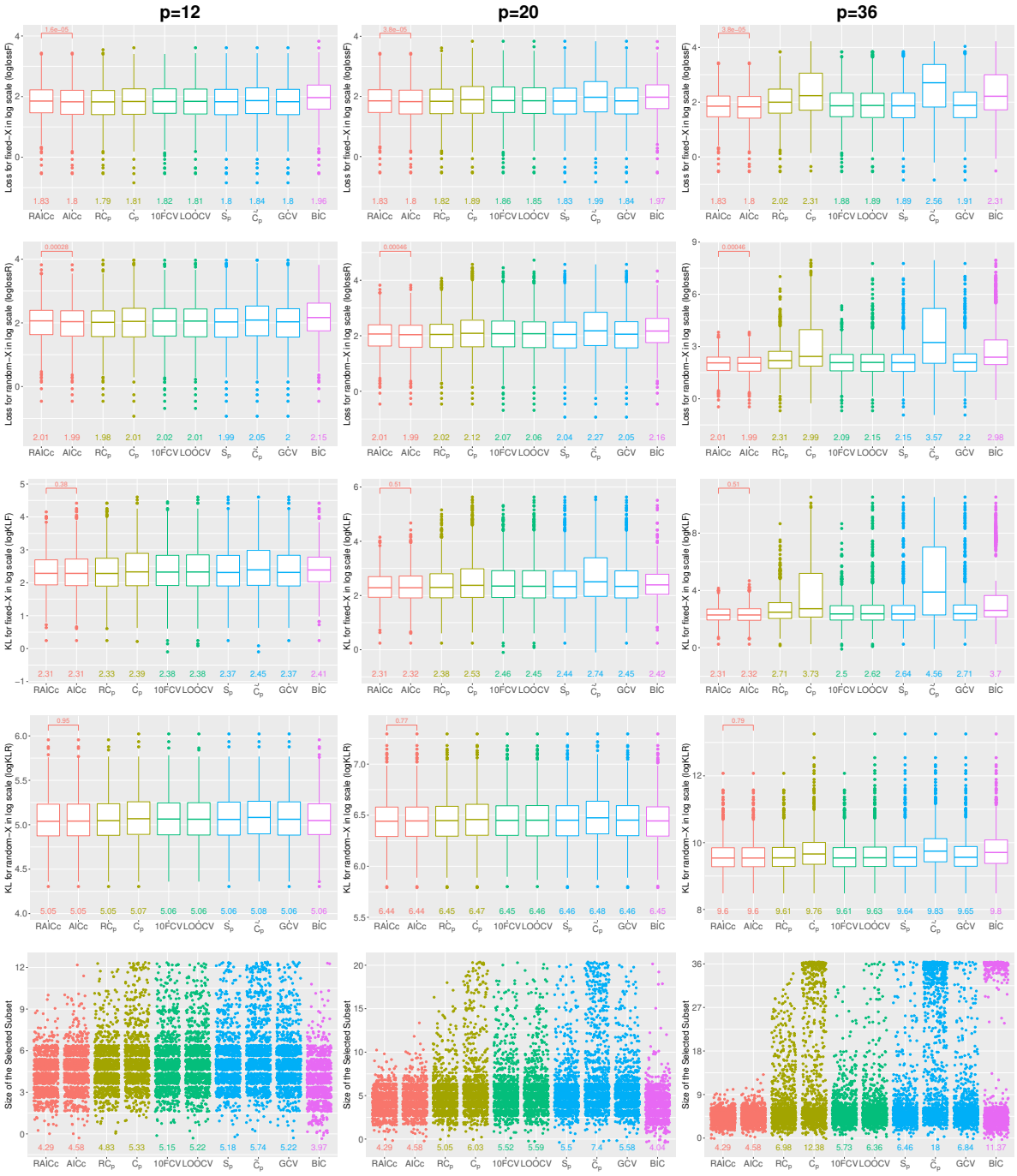

Figure S85: Variable selection, Random-X, Sparse-Ex1, $n = 40$, medium signal, and $\rho = 0$.

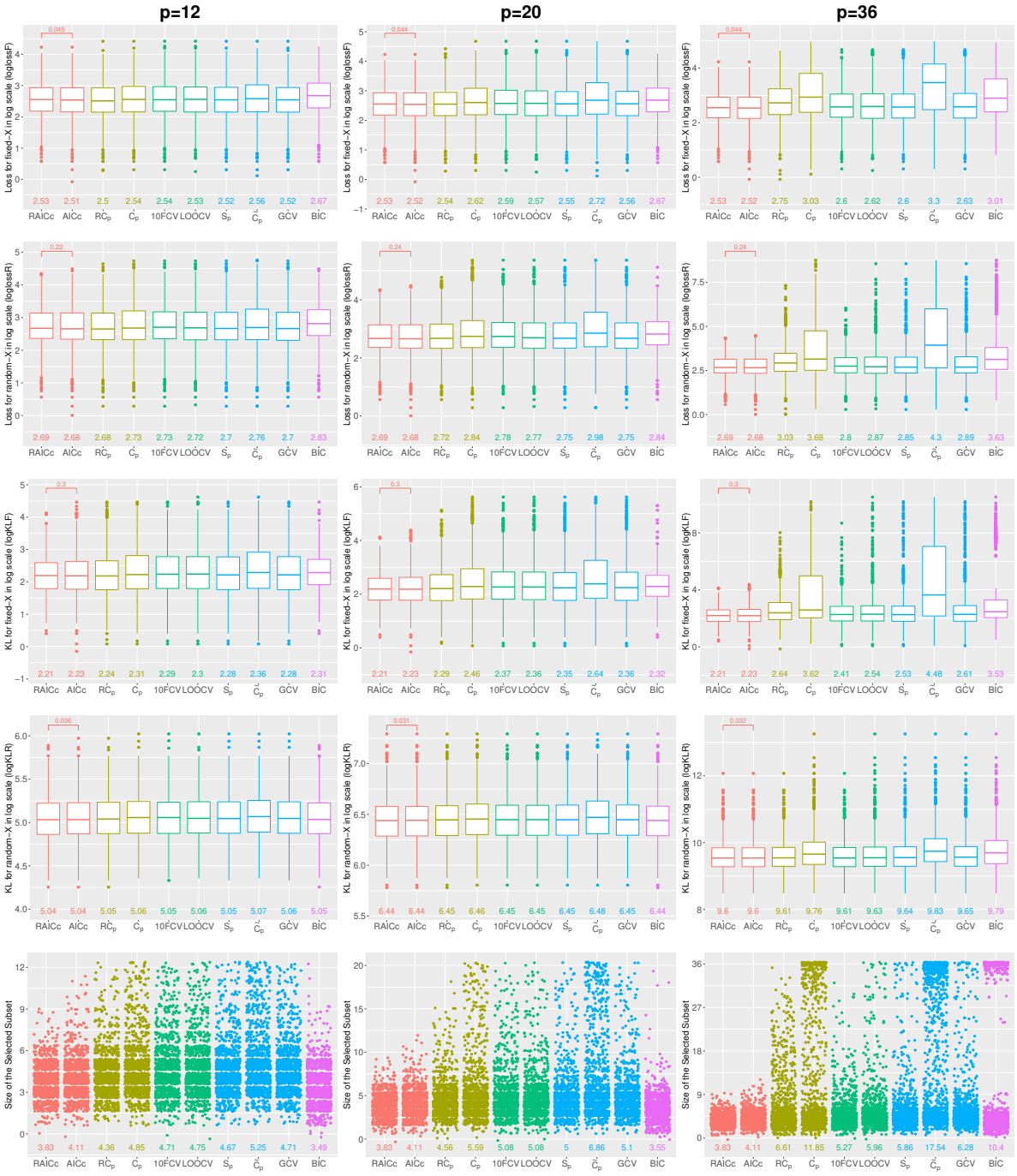

Figure S86: Variable selection, Random-X, Sparse-Ex1, $n = 40$, medium signal, and $\rho = 0.5$.

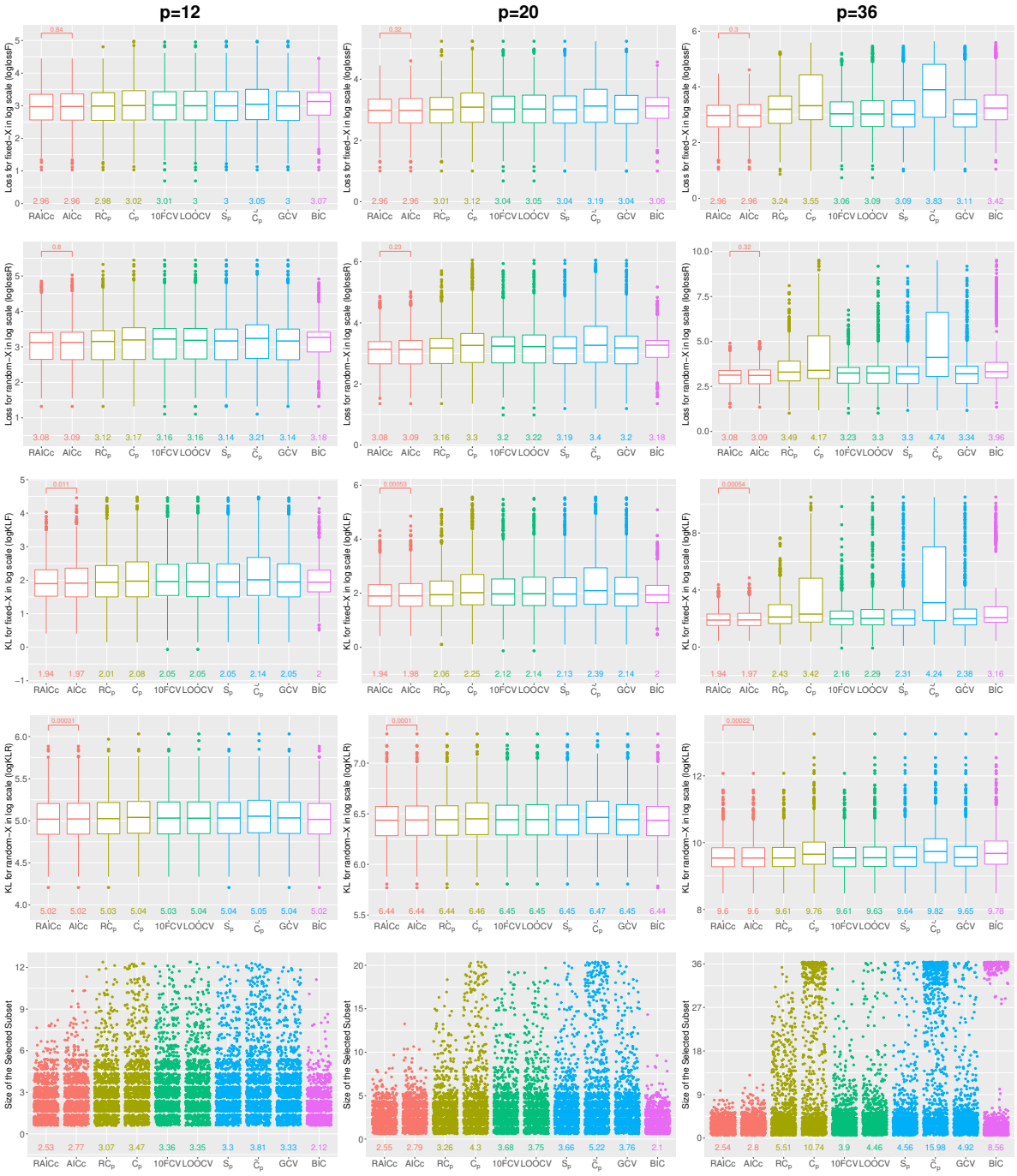

Figure S87: Variable selection, Random-X, Sparse-Ex1, $n = 40$, medium signal, and $\rho = 0.9$.

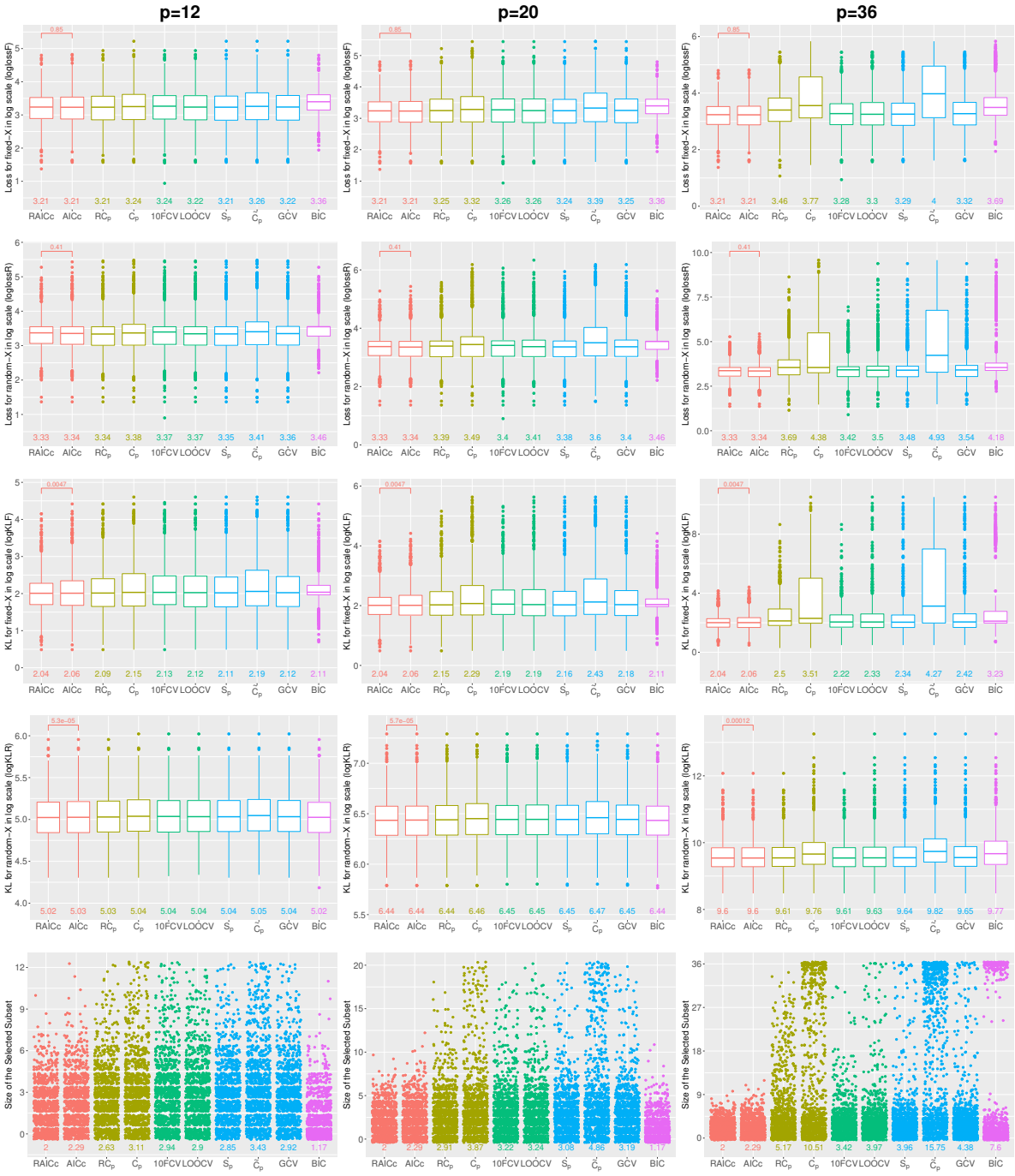

Figure S88: Variable selection, Random-X, Sparse-Ex1, $n = 40$, low signal, and $\rho = 0$.

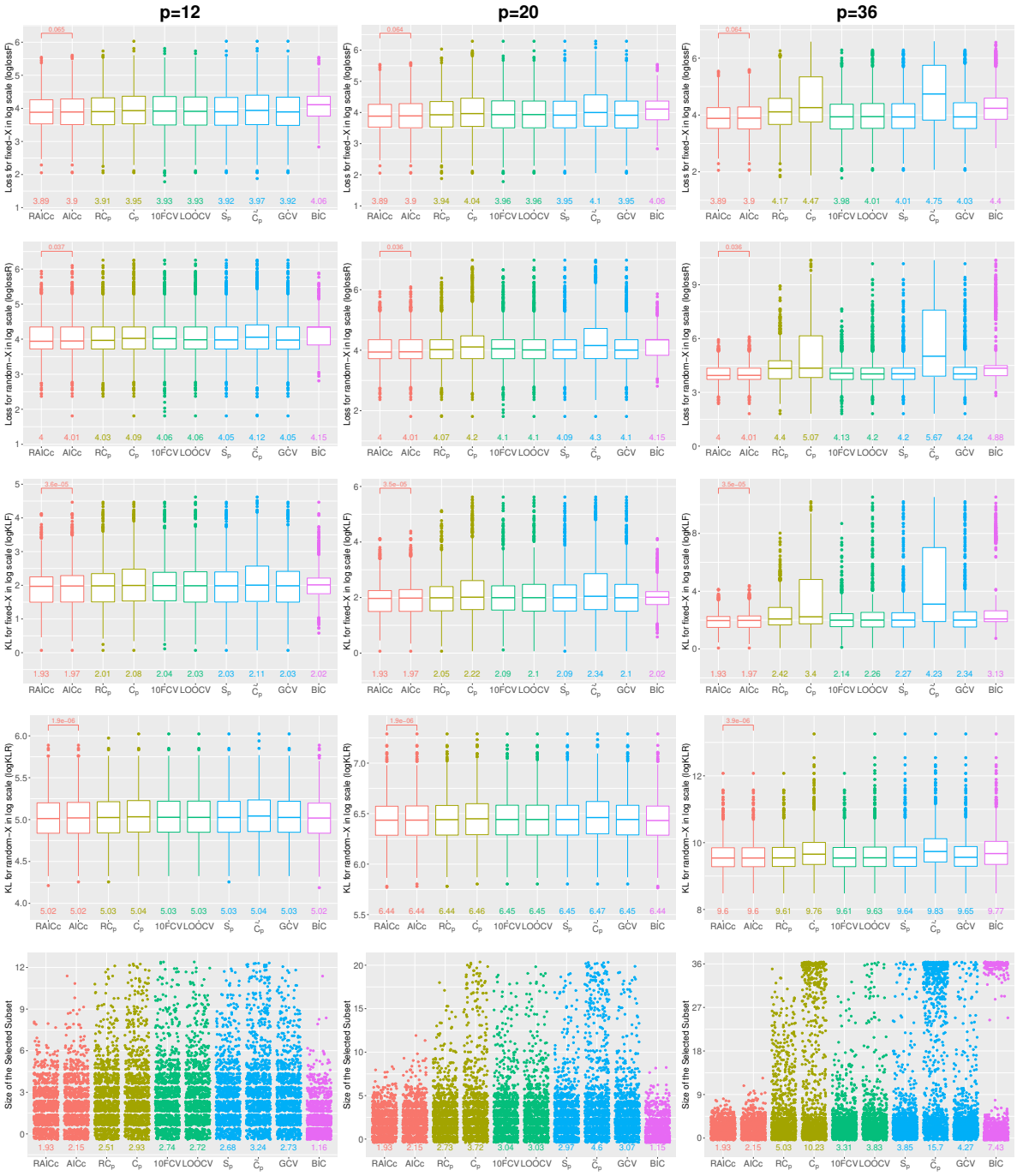

Figure S89: Variable selection, Random-X, Sparse-Ex1, $n = 40$, low signal, and $\rho = 0.5$.

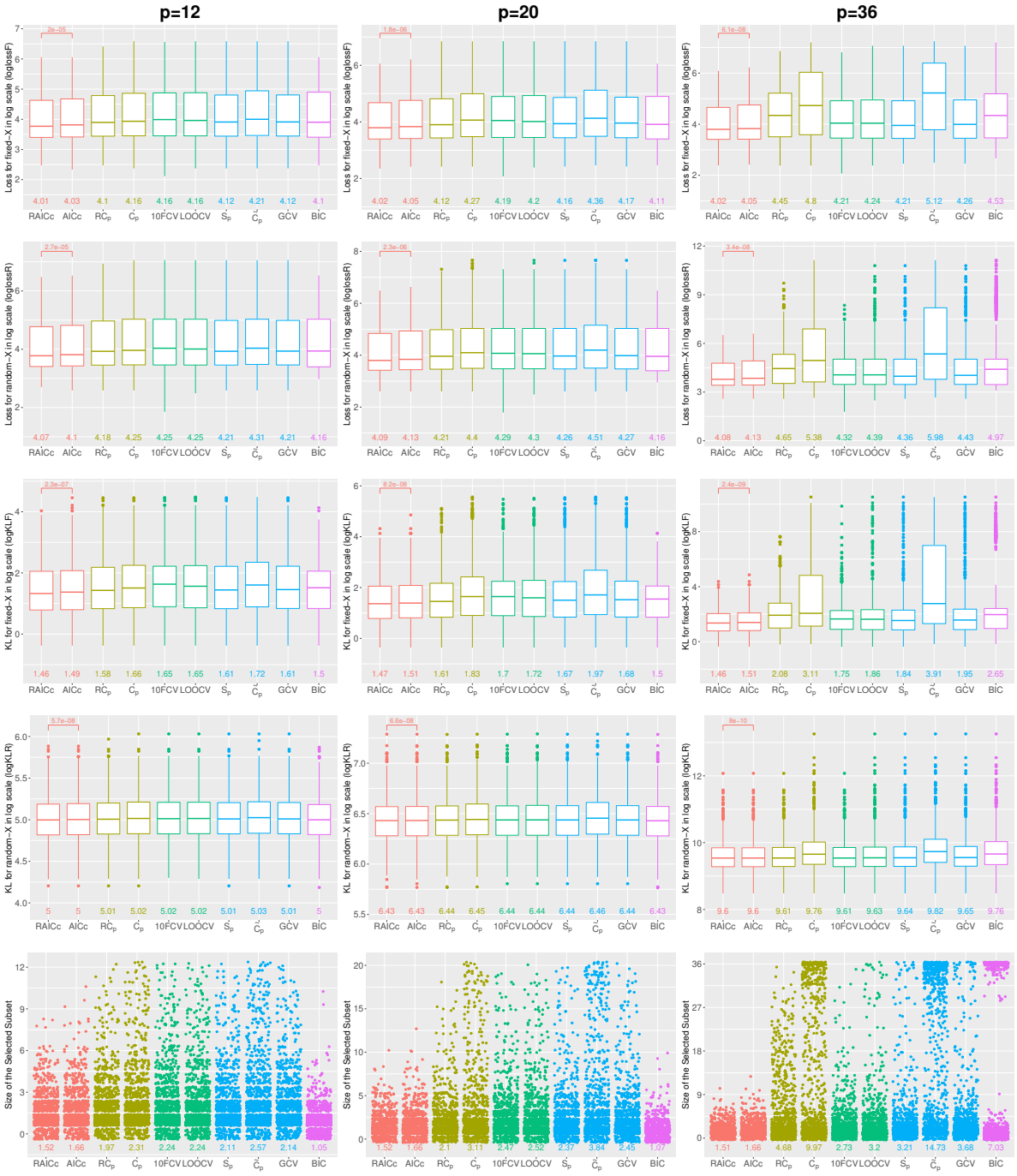

Figure S90: Variable selection, Random-X, Sparse-Ex1, $n = 40$, low signal, and $\rho = 0.9$.

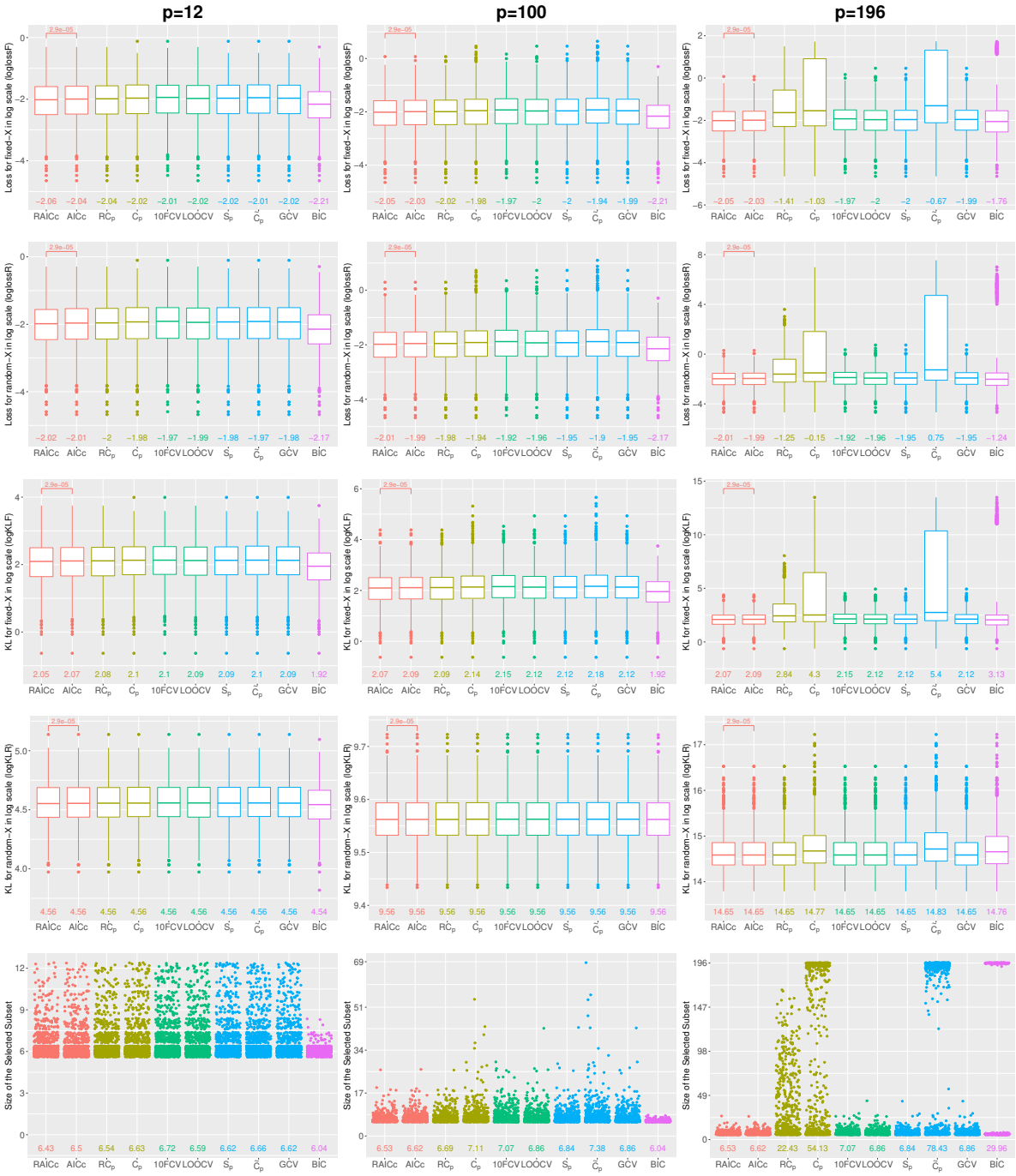

Figure S91: Variable selection, Random-X, Sparse-Ex1, $n = 200$, high signal, and $\rho = 0$.

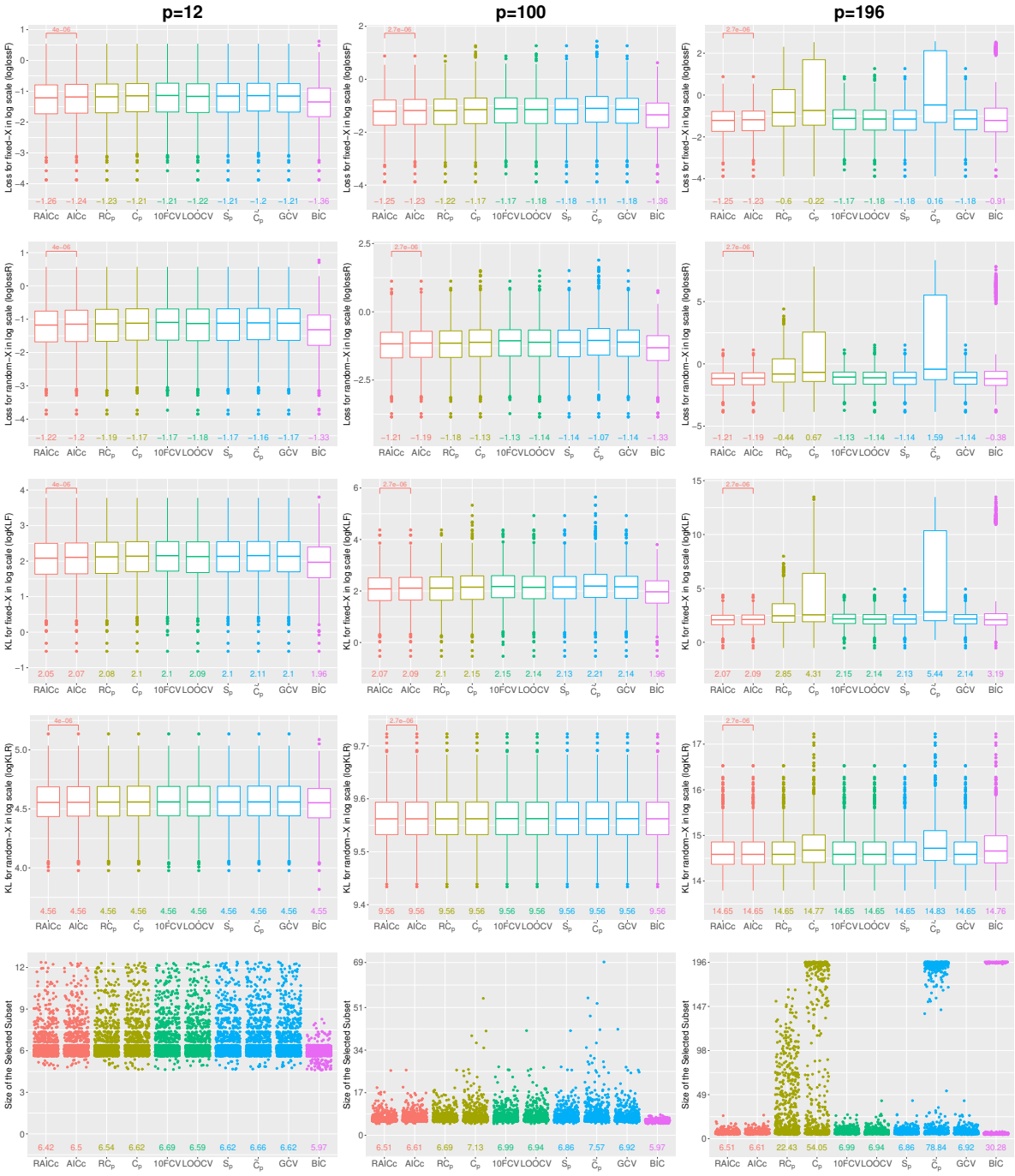

Figure S92: Variable selection, Random-X, Sparse-Ex1, $n = 200$, high signal, and $\rho = 0.5$.

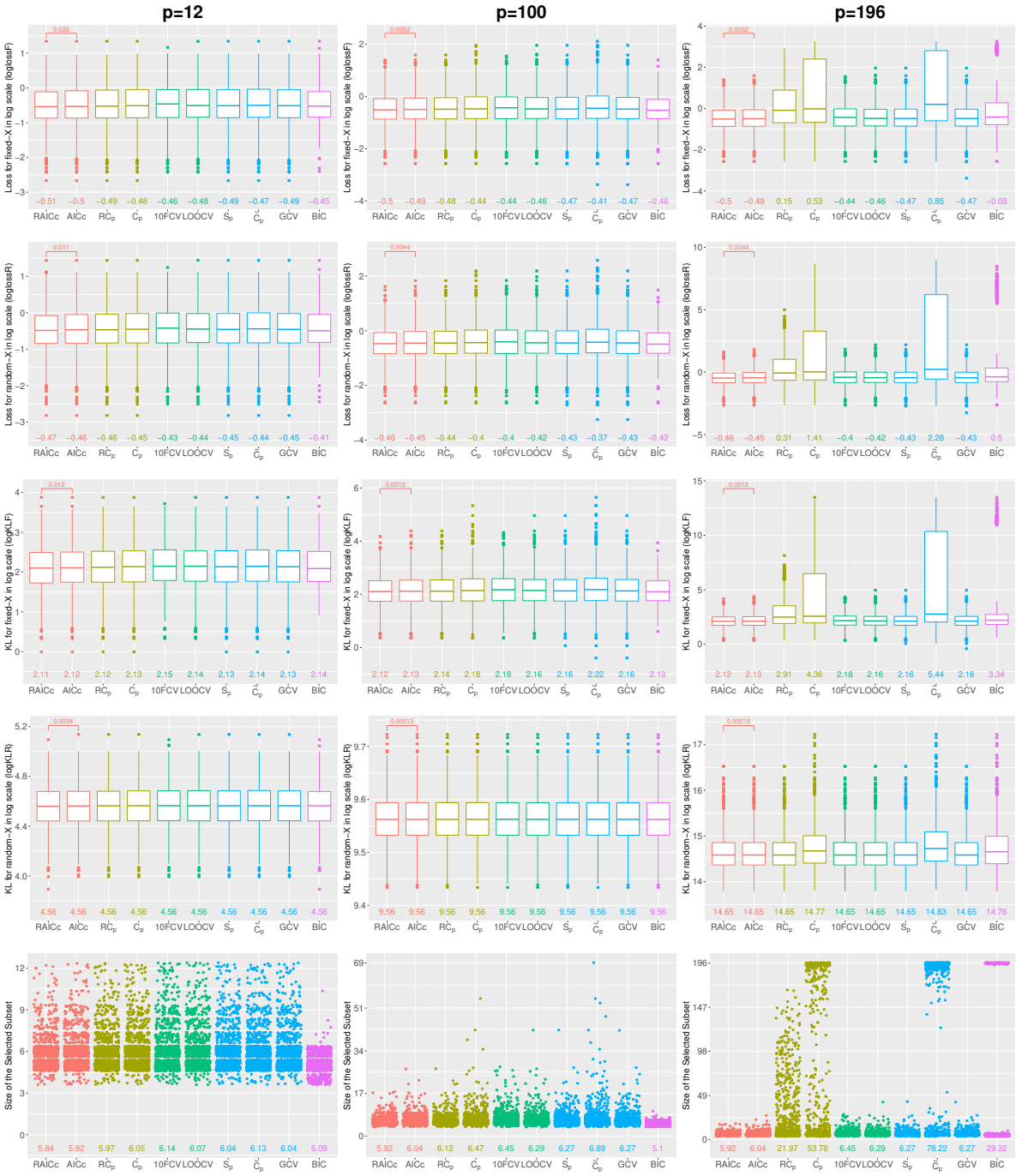

Figure S93: Variable selection, Random-X, Sparse-Ex1, $n = 200$, high signal, and $\rho = 0.9$.

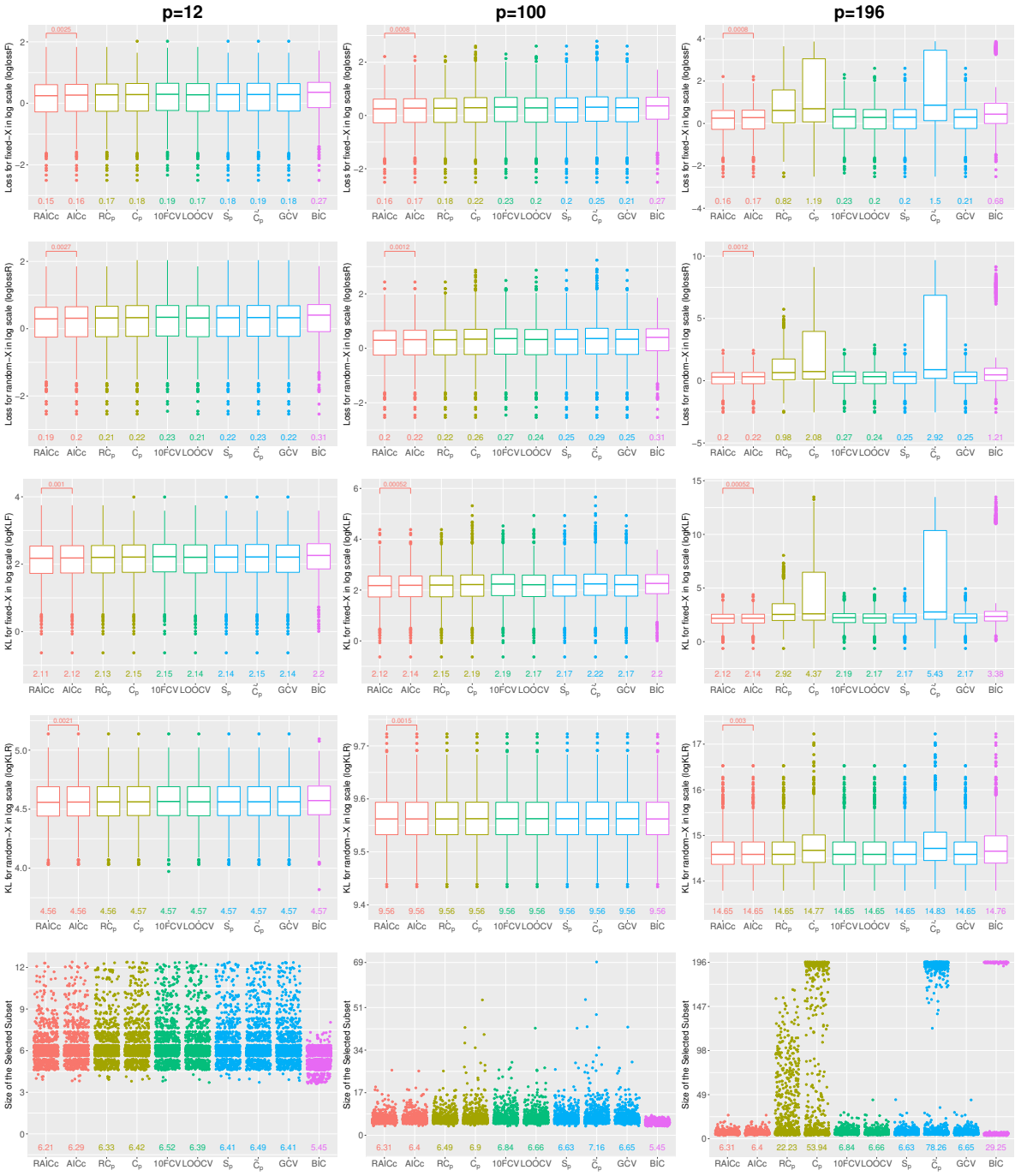

Figure S94: Variable selection, Random-X, Sparse-Ex1, $n = 200$, medium signal, and $\rho = 0$.

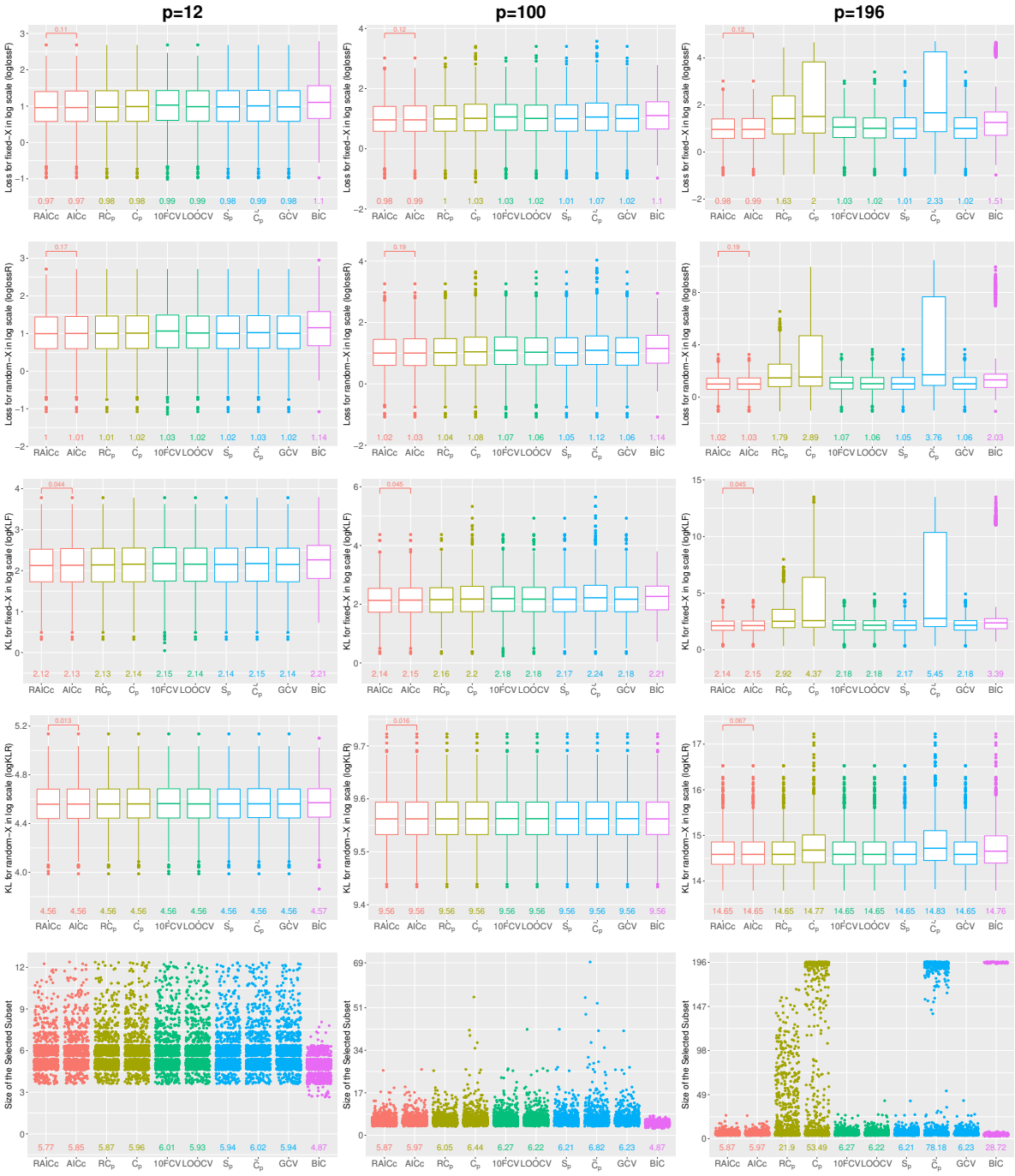

Figure S95: Variable selection, Random-X, Sparse-Ex1, $n = 200$, medium signal, and $\rho = 0.5$.

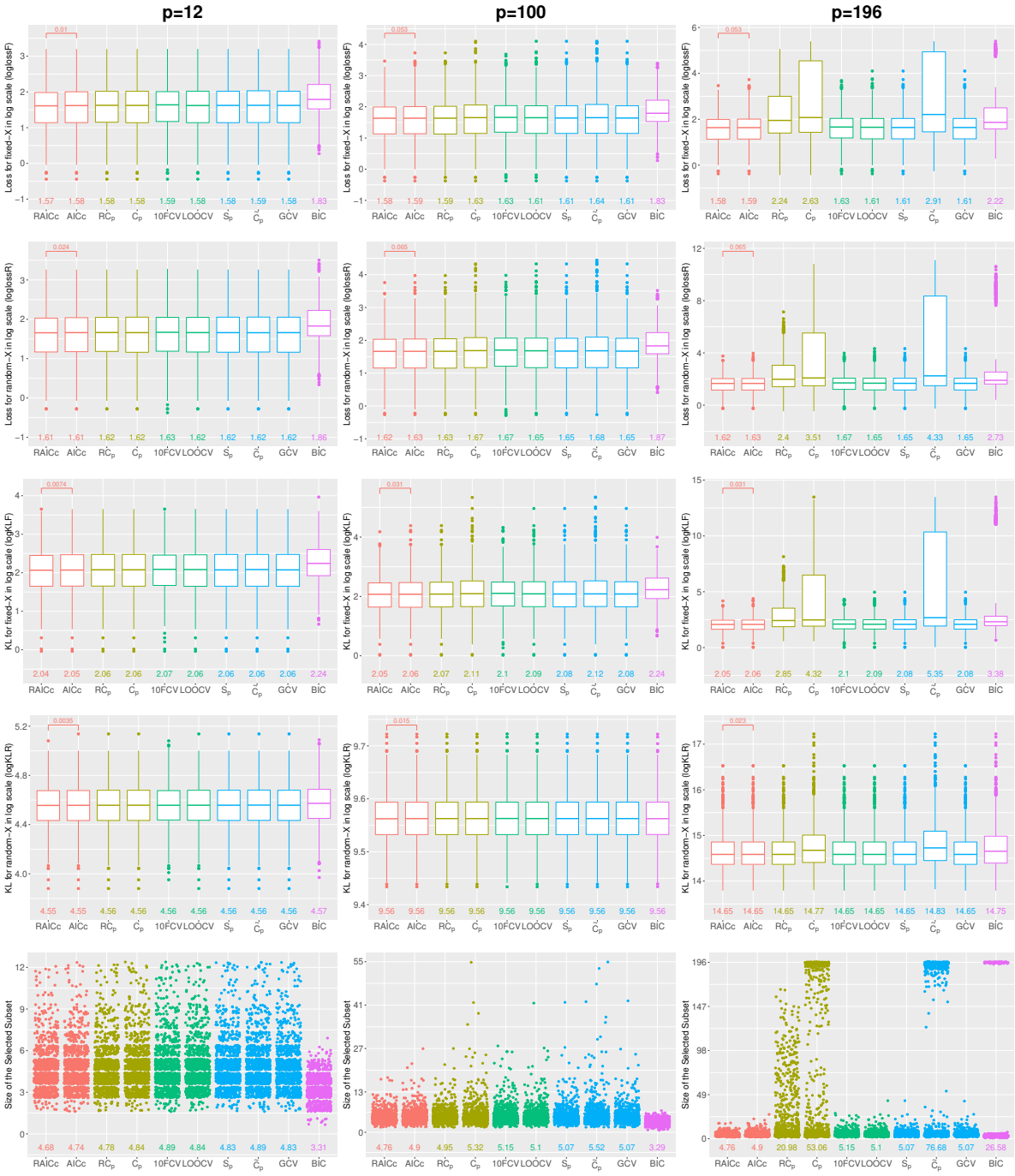

Figure S96: Variable selection, Random-X, Sparse-Ex1, $n = 200$, medium signal, and $\rho = 0.9$.

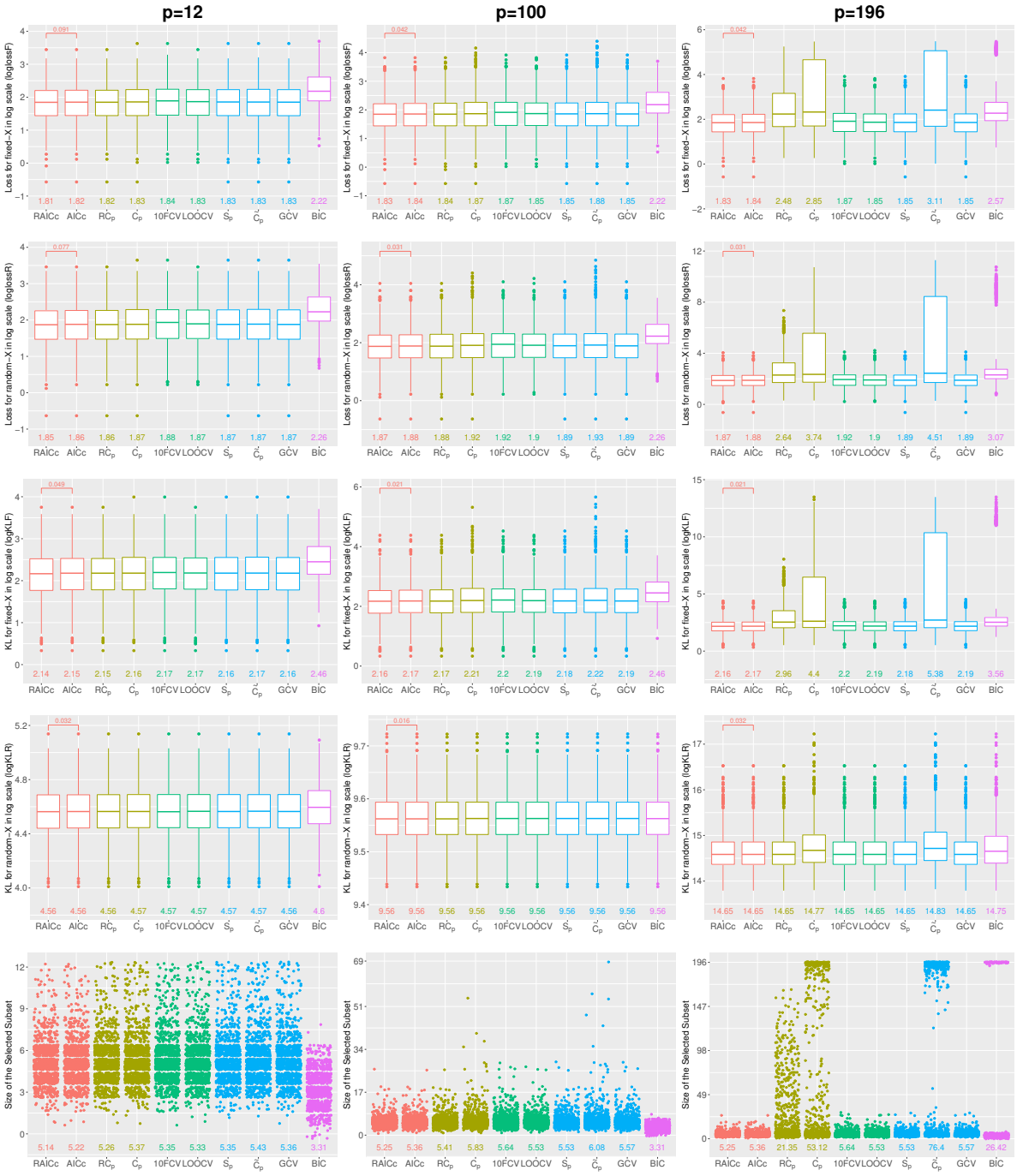

Figure S97: Variable selection, Random-X, Sparse-Ex1, $n = 200$, low signal, and $\rho = 0$.

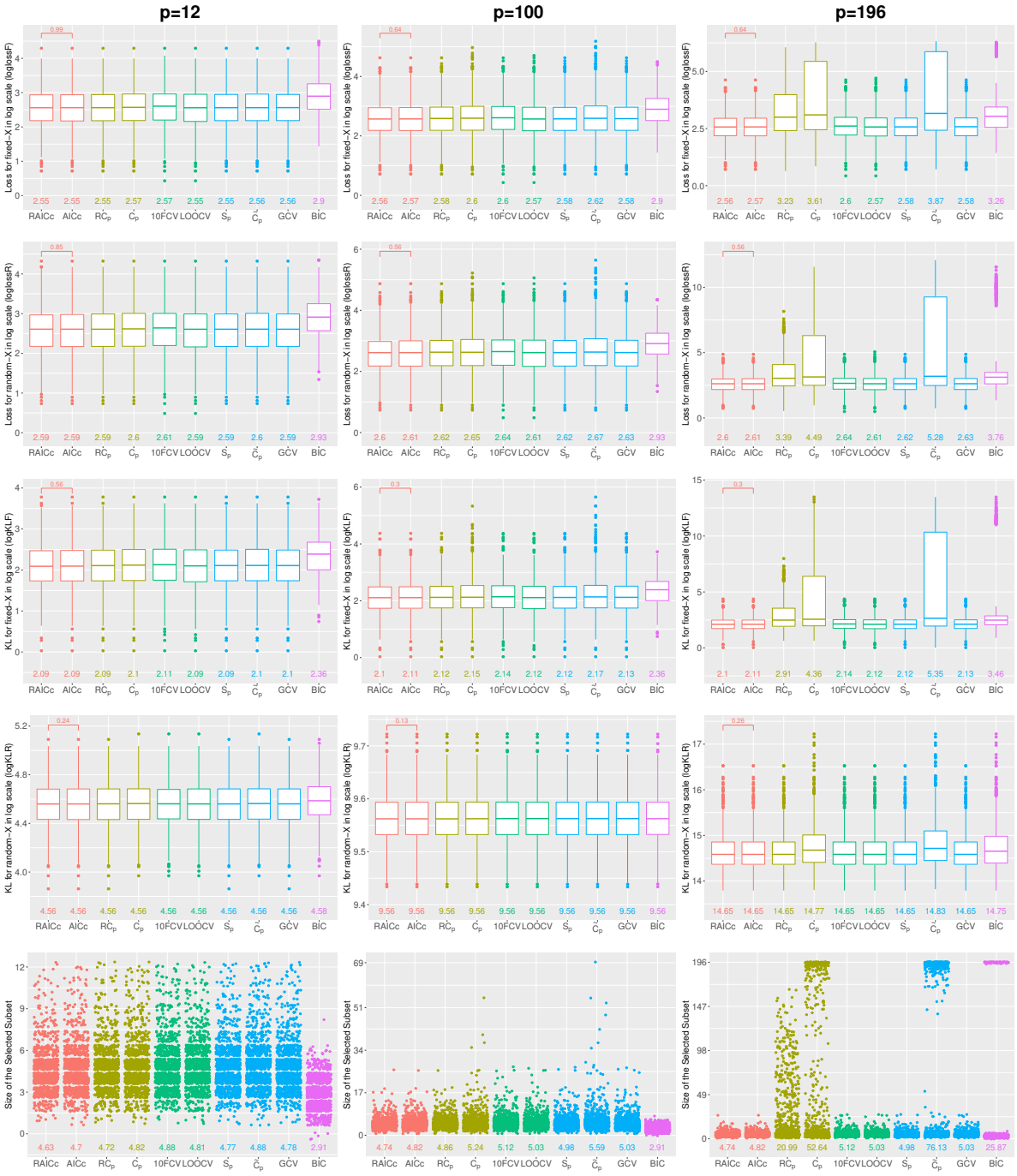

Figure S98: Variable selection, Random-X, Sparse-Ex1, $n = 200$, low signal, and $\rho = 0.5$.

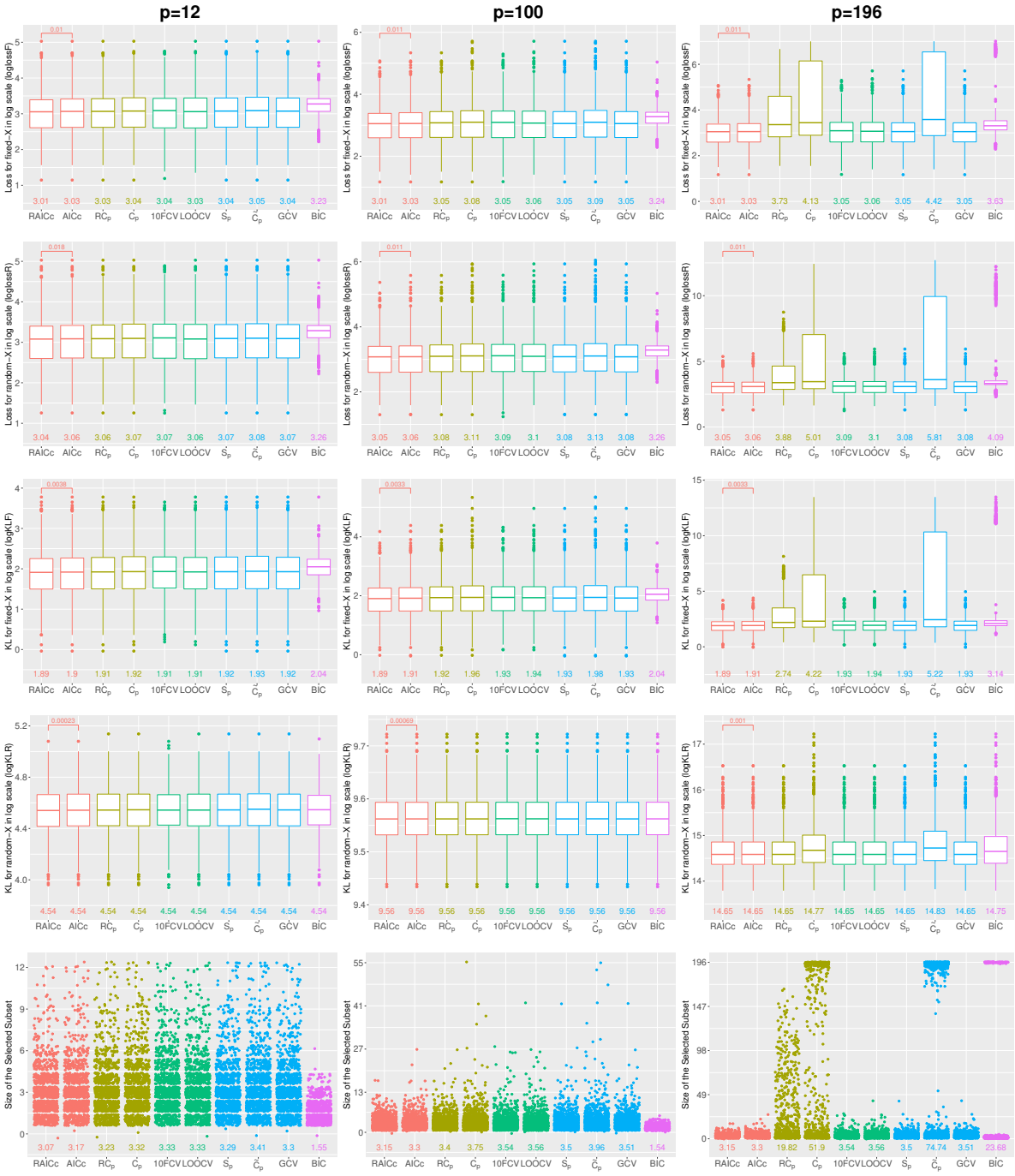

Figure S99: Variable selection, Random-X, Sparse-Ex1, $n = 200$, low signal, and $\rho = 0.9$.

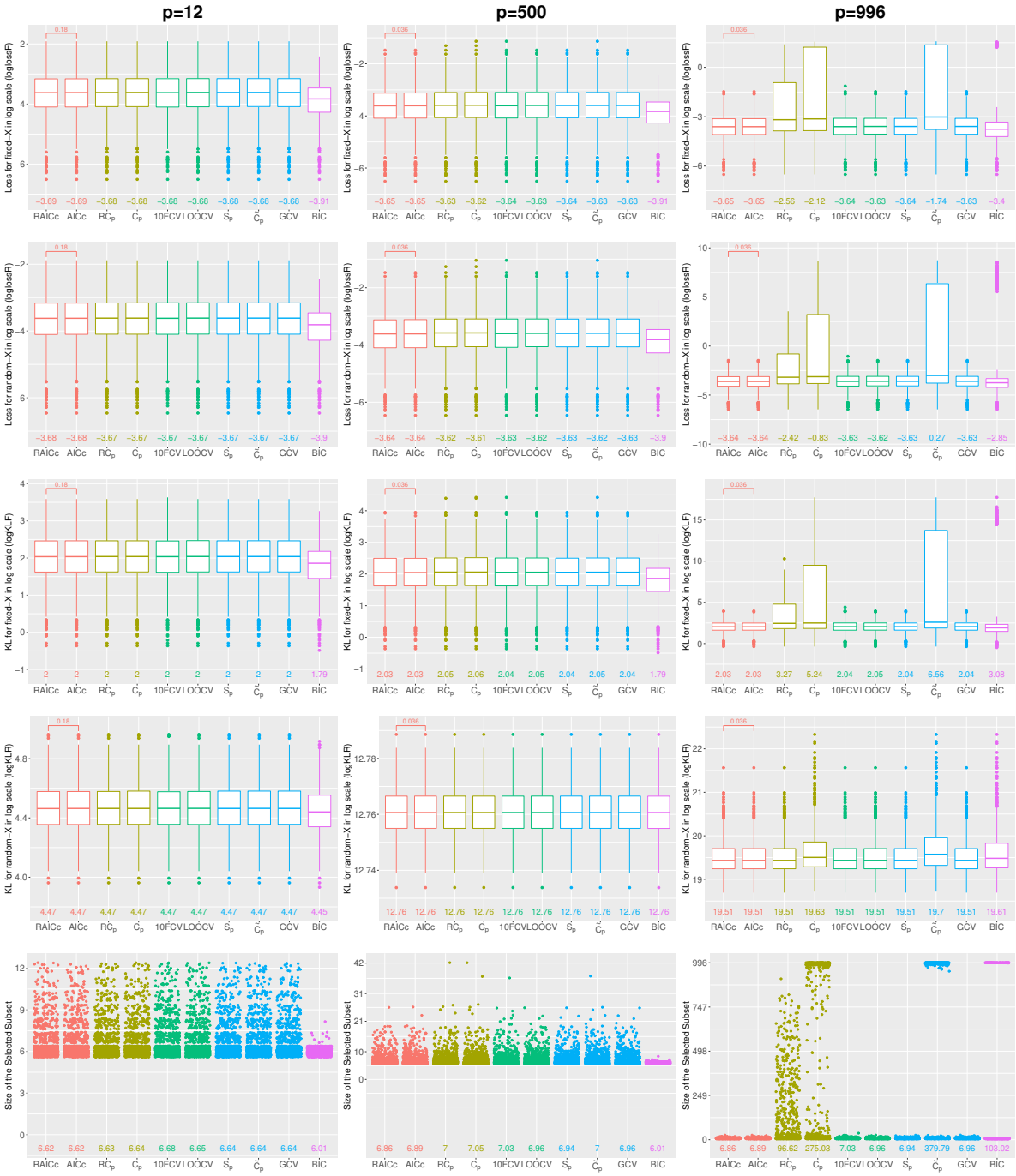

Figure S100: Variable selection, Random-X, Sparse-Ex1, $n = 1000$, high signal, and $\rho = 0$.

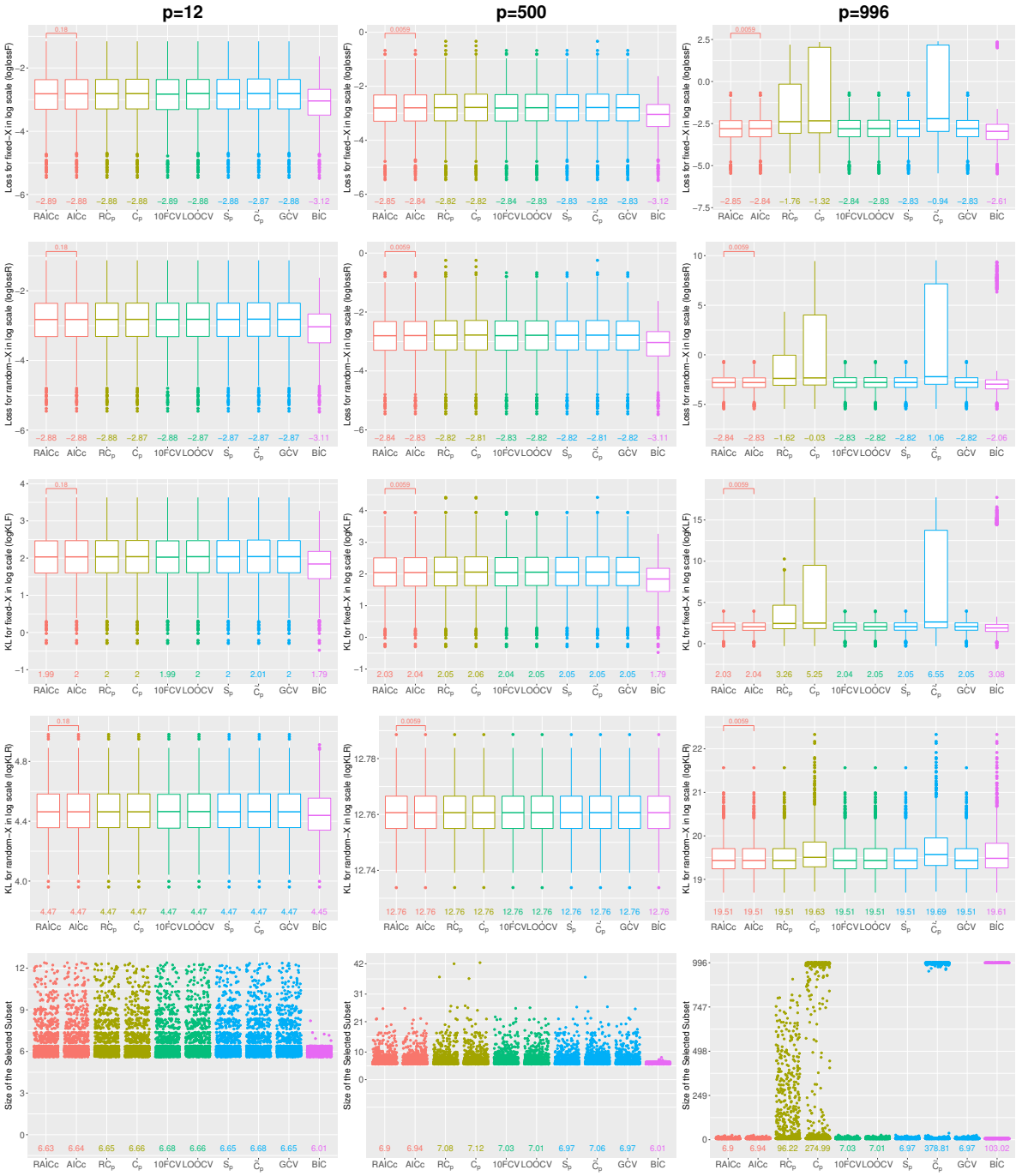

Figure S101: Variable selection, Random-X, Sparse-Ex1, $n = 1000$, high signal, and $\rho = 0.5$.

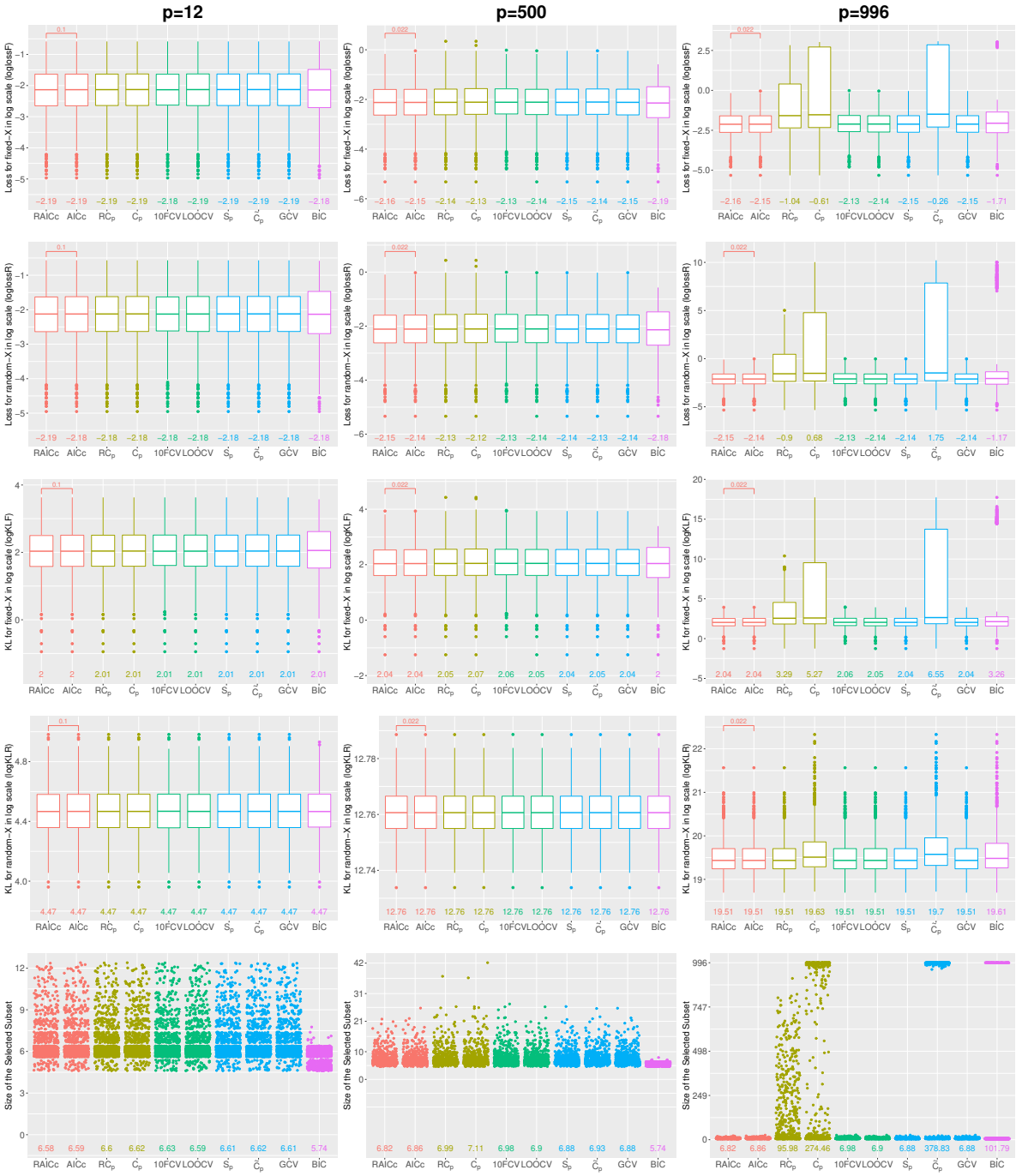

Figure S102: Variable selection, Random-X, Sparse-Ex1, $n = 1000$, high signal, and $\rho = 0.9$.

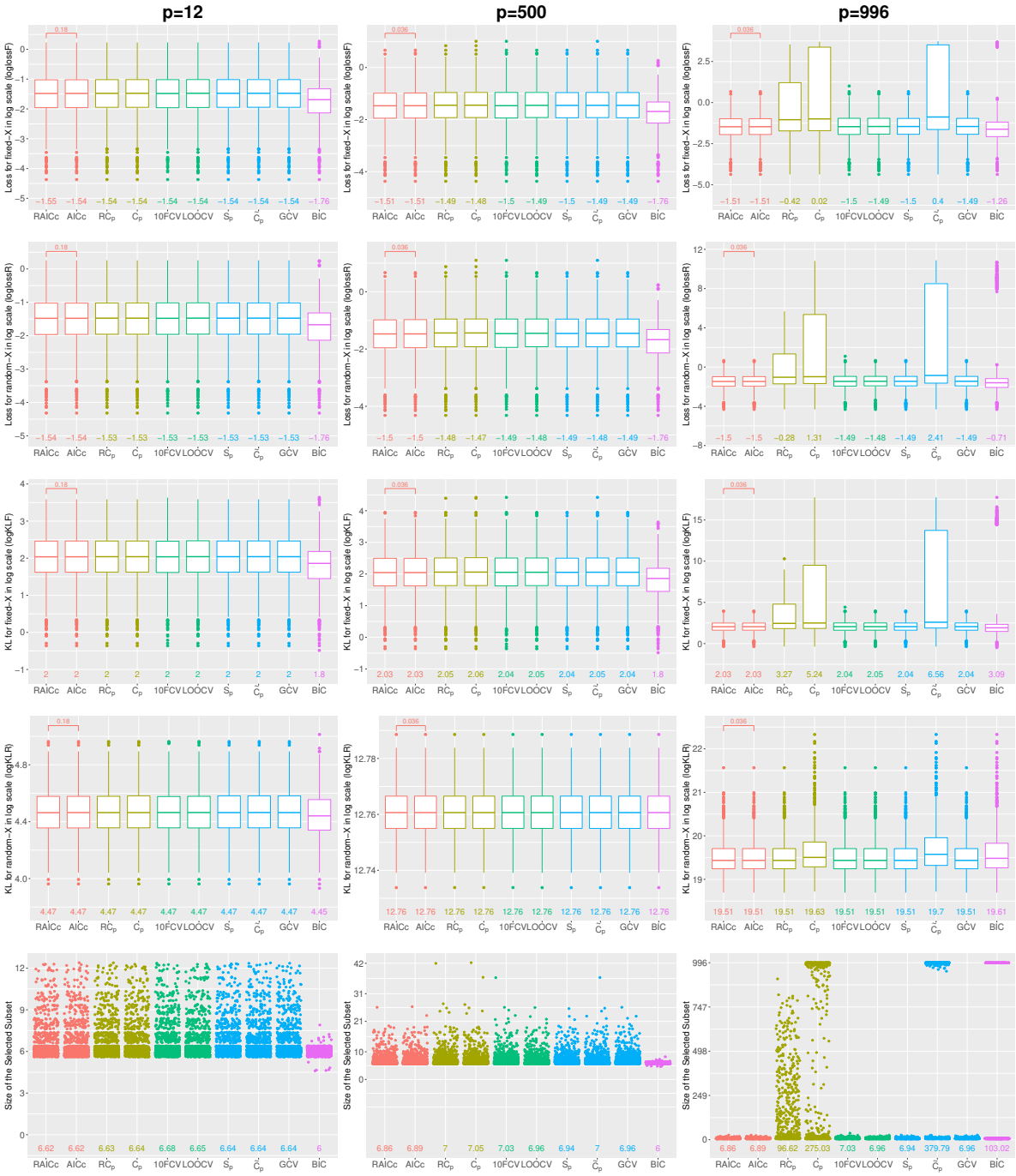

Figure S103: Variable selection, Random-X, Sparse-Ex1, $n = 1000$, medium signal, and $\rho = 0$.

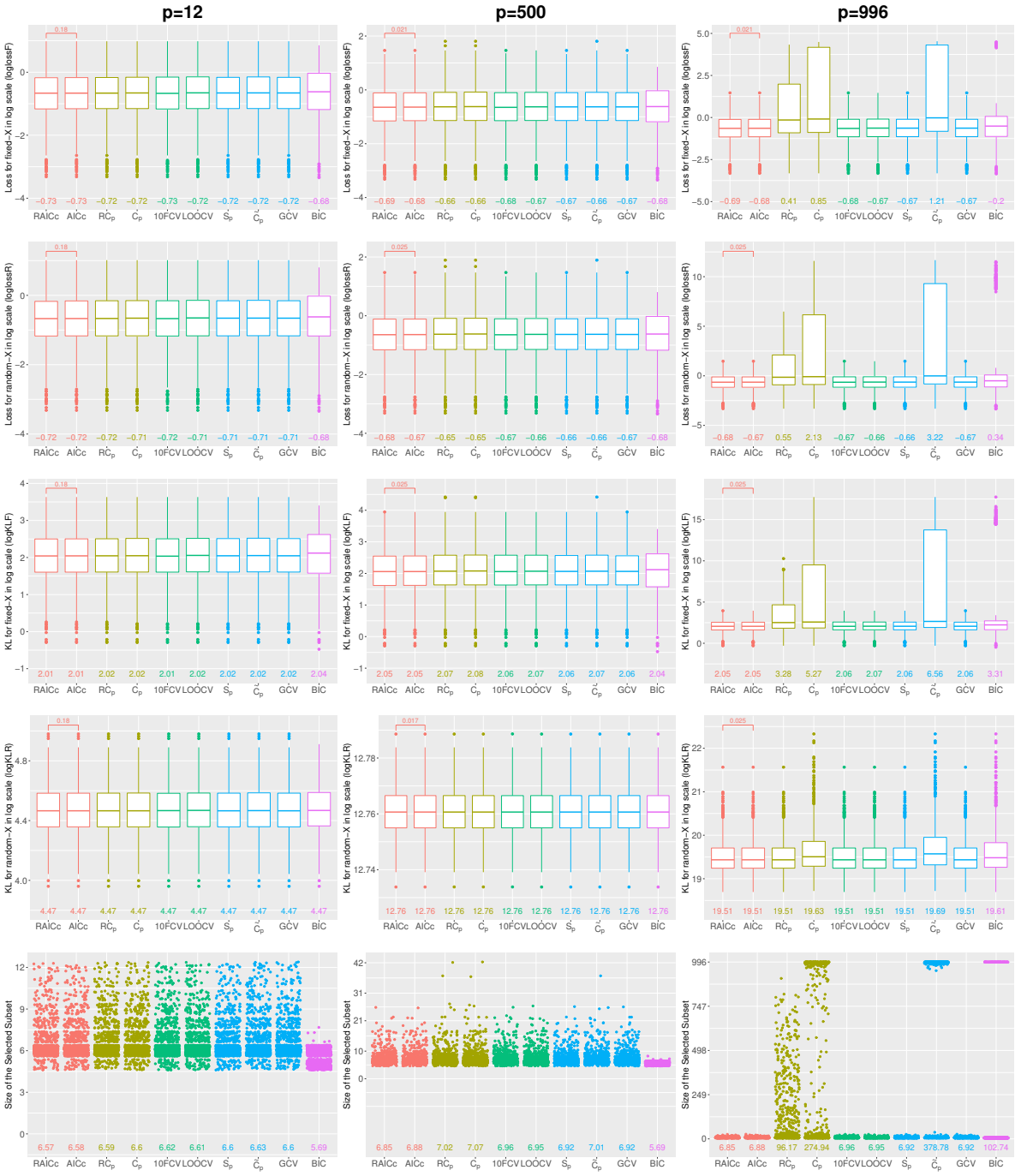

Figure S104: Variable selection, Random-X, Sparse-Ex1, $n = 1000$, medium signal, and $\rho = 0.5$.

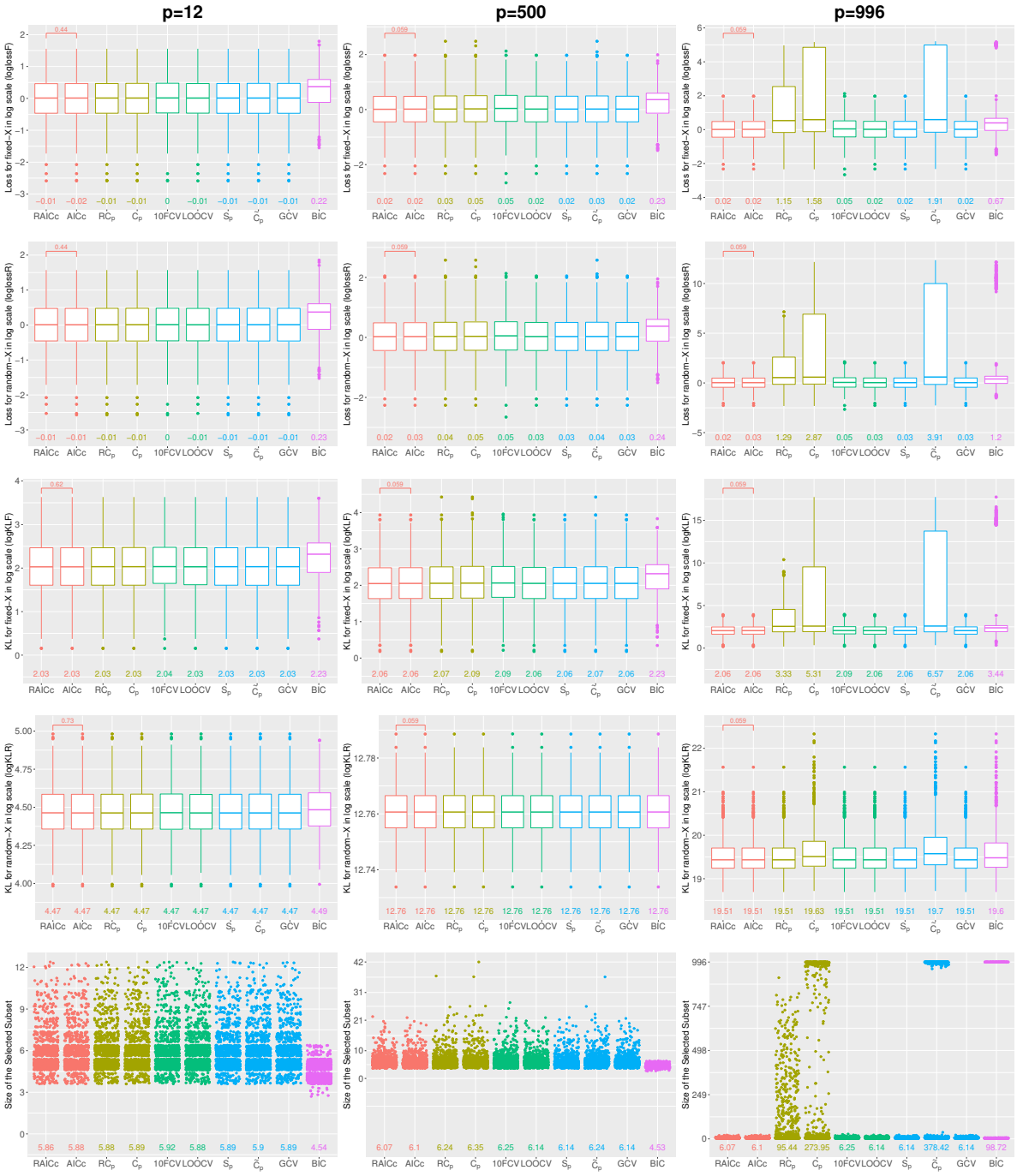

Figure S105: Variable selection, Random-X, Sparse-Ex1, $n = 1000$, medium signal, and $\rho = 0.9$.

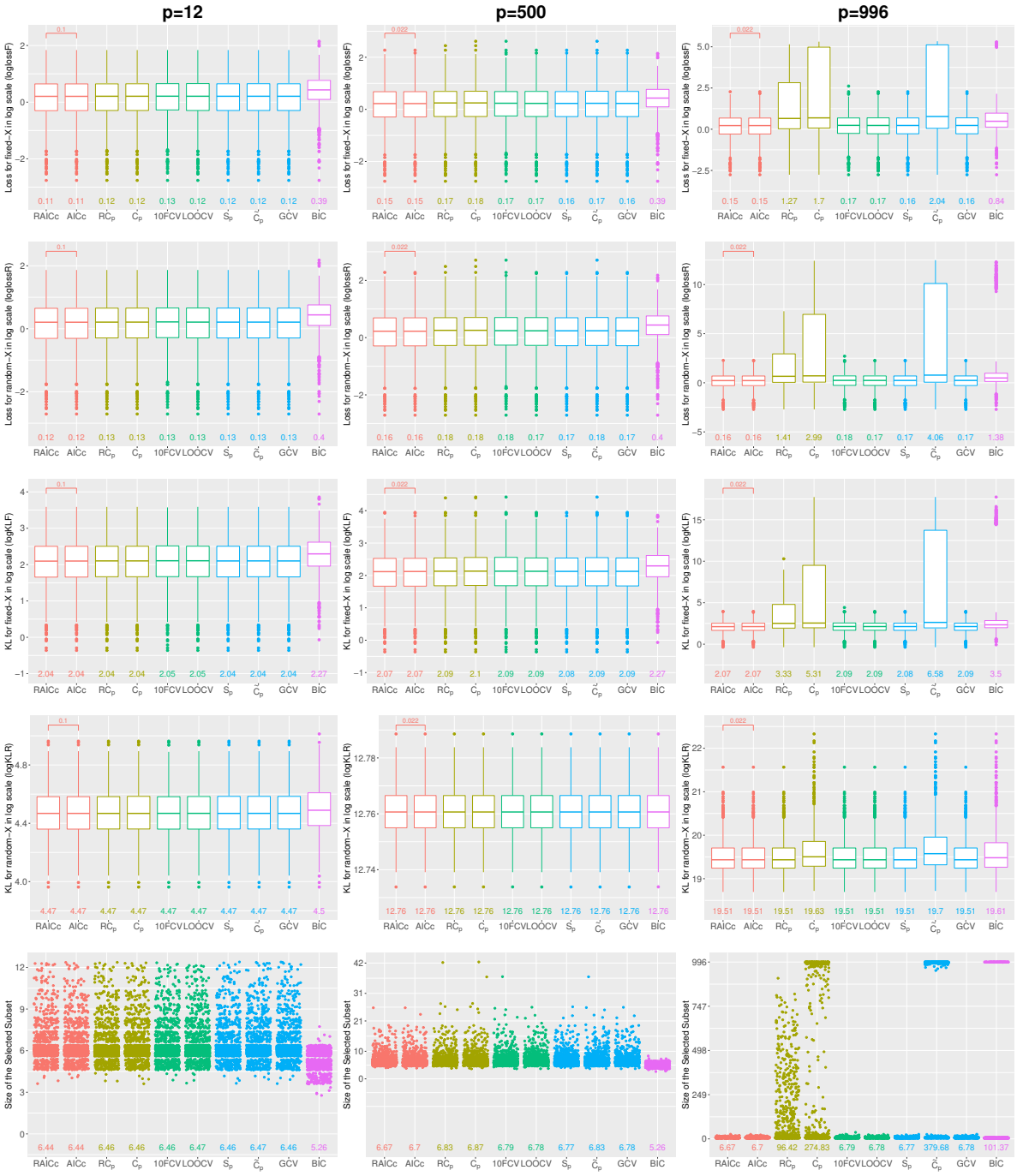

Figure S106: Variable selection, Random-X, Sparse-Ex1, $n = 1000$, low signal, and $\rho = 0$.

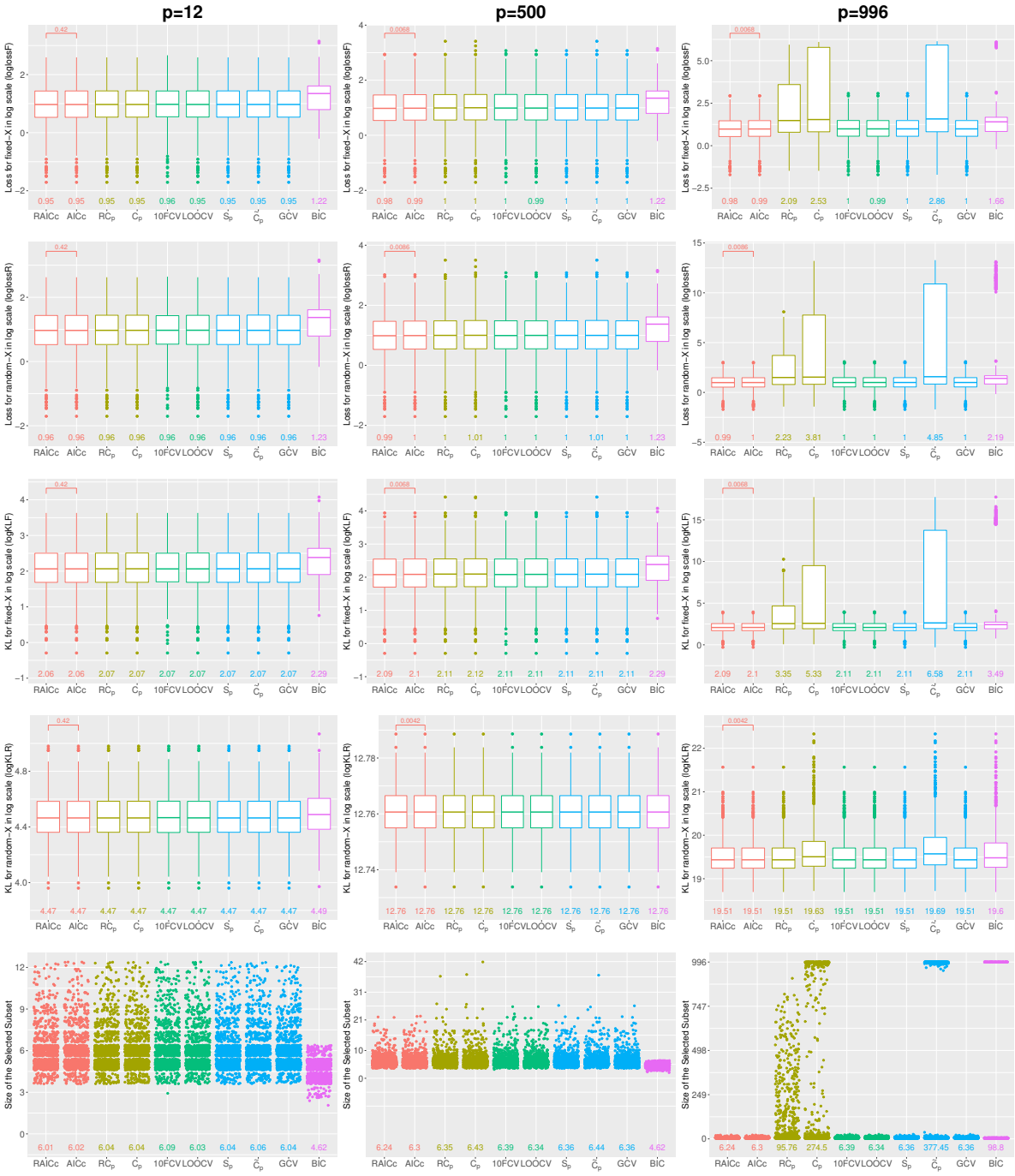

Figure S107: Variable selection, Random-X, Sparse-Ex1, $n = 1000$, low signal, and $\rho = 0.5$.

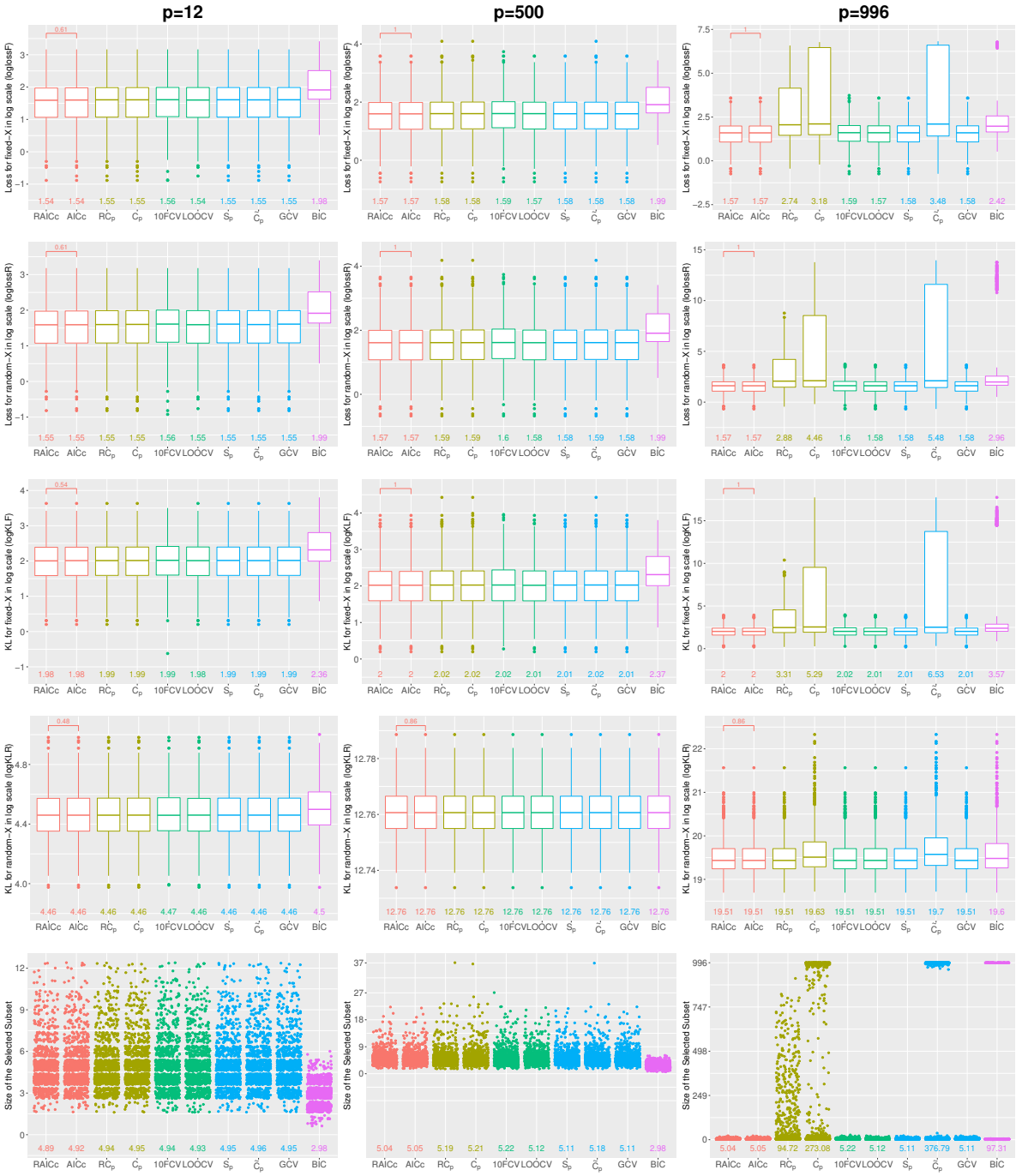

Figure S108: Variable selection, Random-X, Sparse-Ex1, $n = 1000$, low signal, and $\rho = 0.9$.

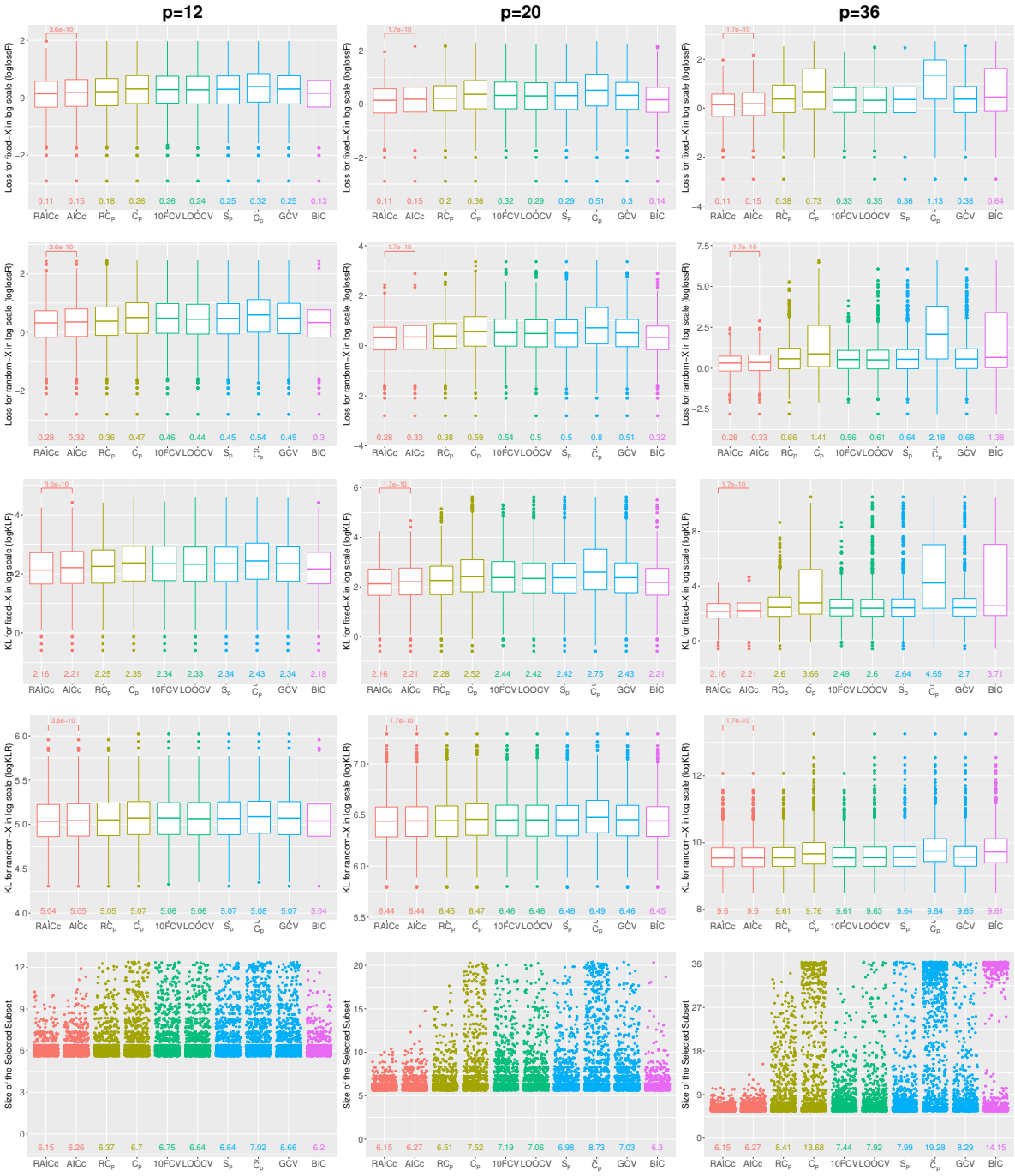

Figure S109: Variable selection, Random-X, Sparse-Ex2, $n = 40$, high signal, and $\rho = 0$.

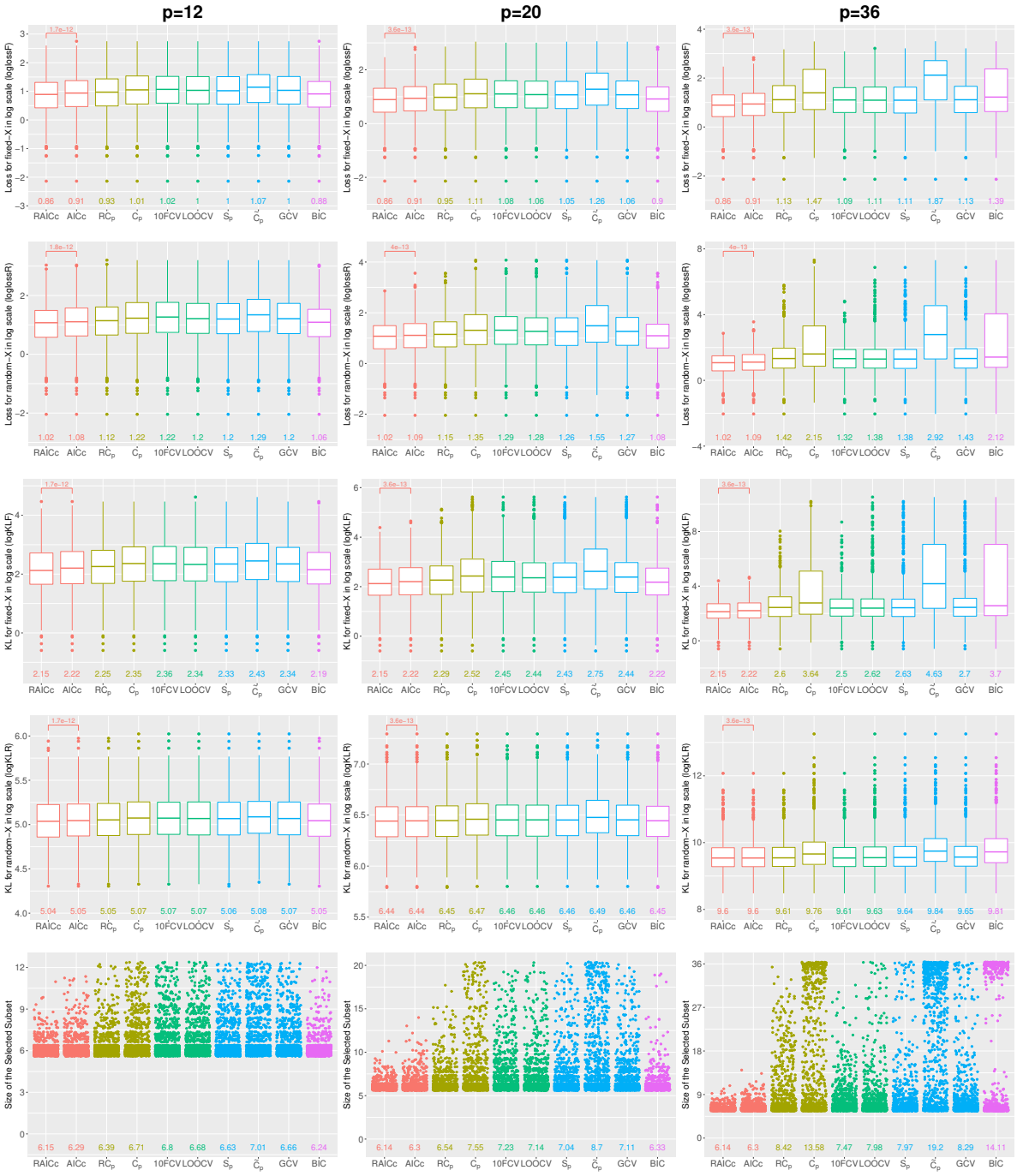

Figure S110: Variable selection, Random-X, Sparse-Ex2, $n = 40$, high signal, and $\rho = 0.5$.

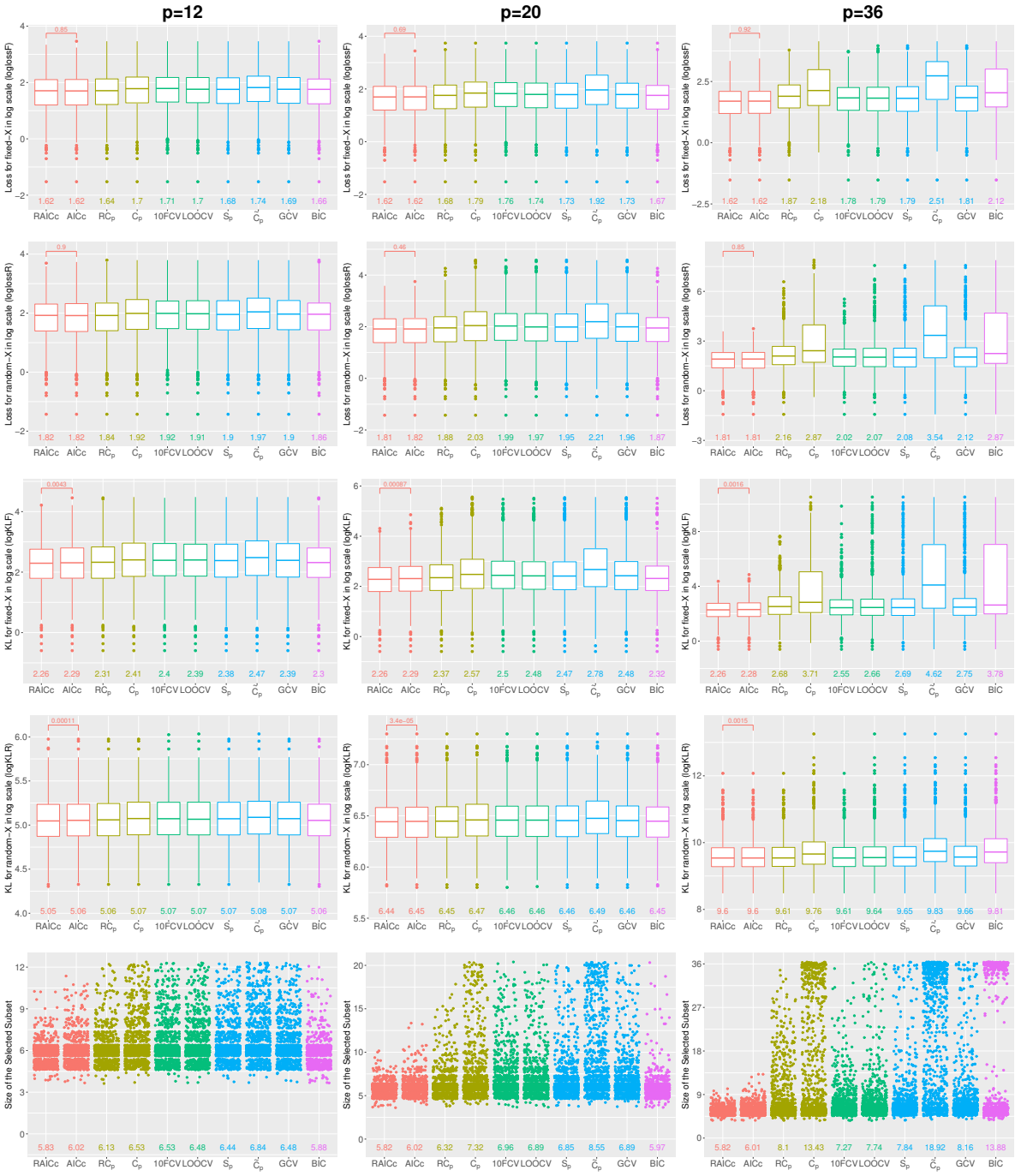

Figure S111: Variable selection, Random-X, Sparse-Ex2, $n = 40$, high signal, and $\rho = 0.9$.

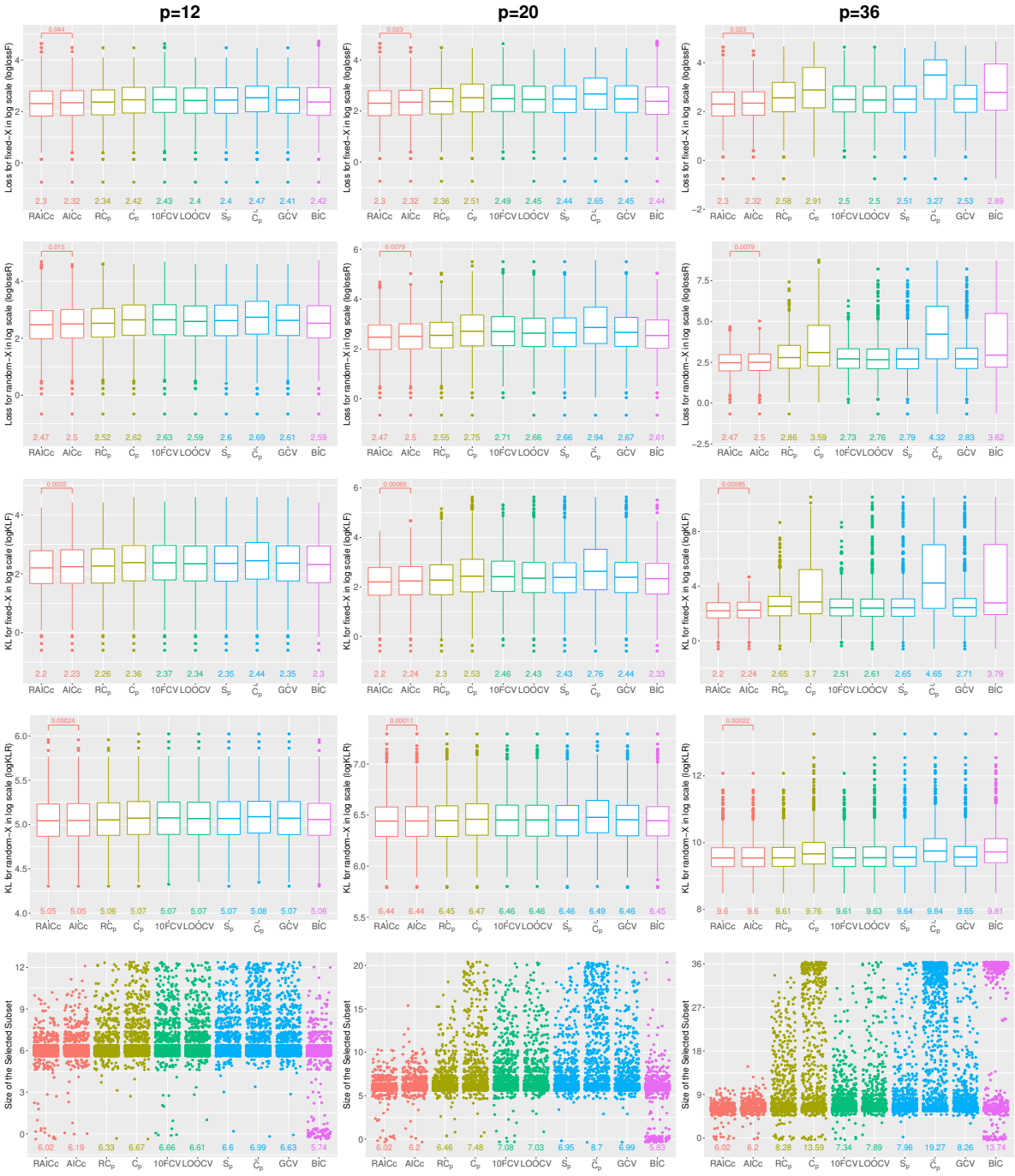

Figure S112: Variable selection, Random-X, Sparse-Ex2, $n = 40$, medium signal, and $\rho = 0$.

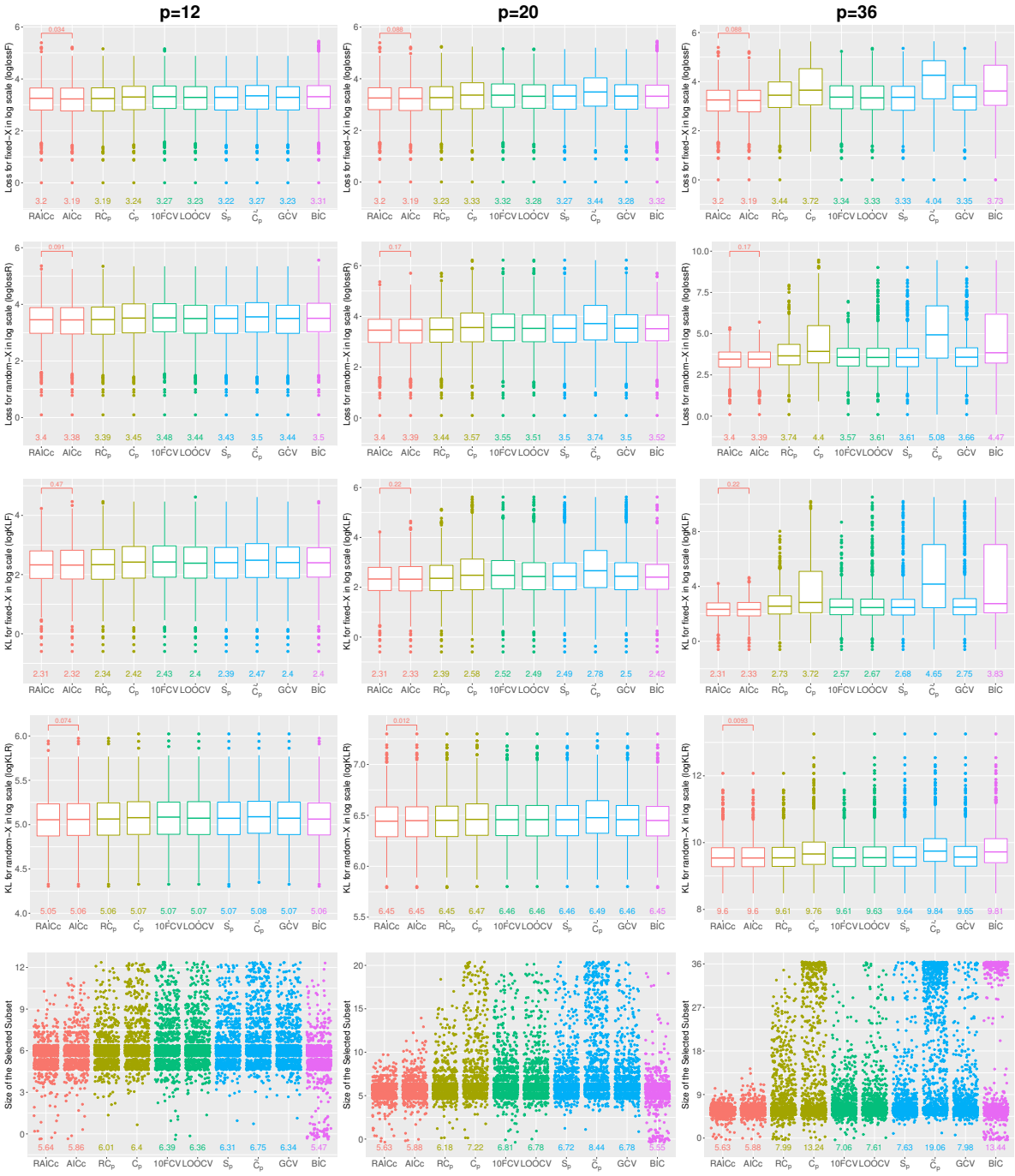

Figure S113: Variable selection, Random-X, Sparse-Ex2, $n = 40$, medium signal, and $\rho = 0.5$.

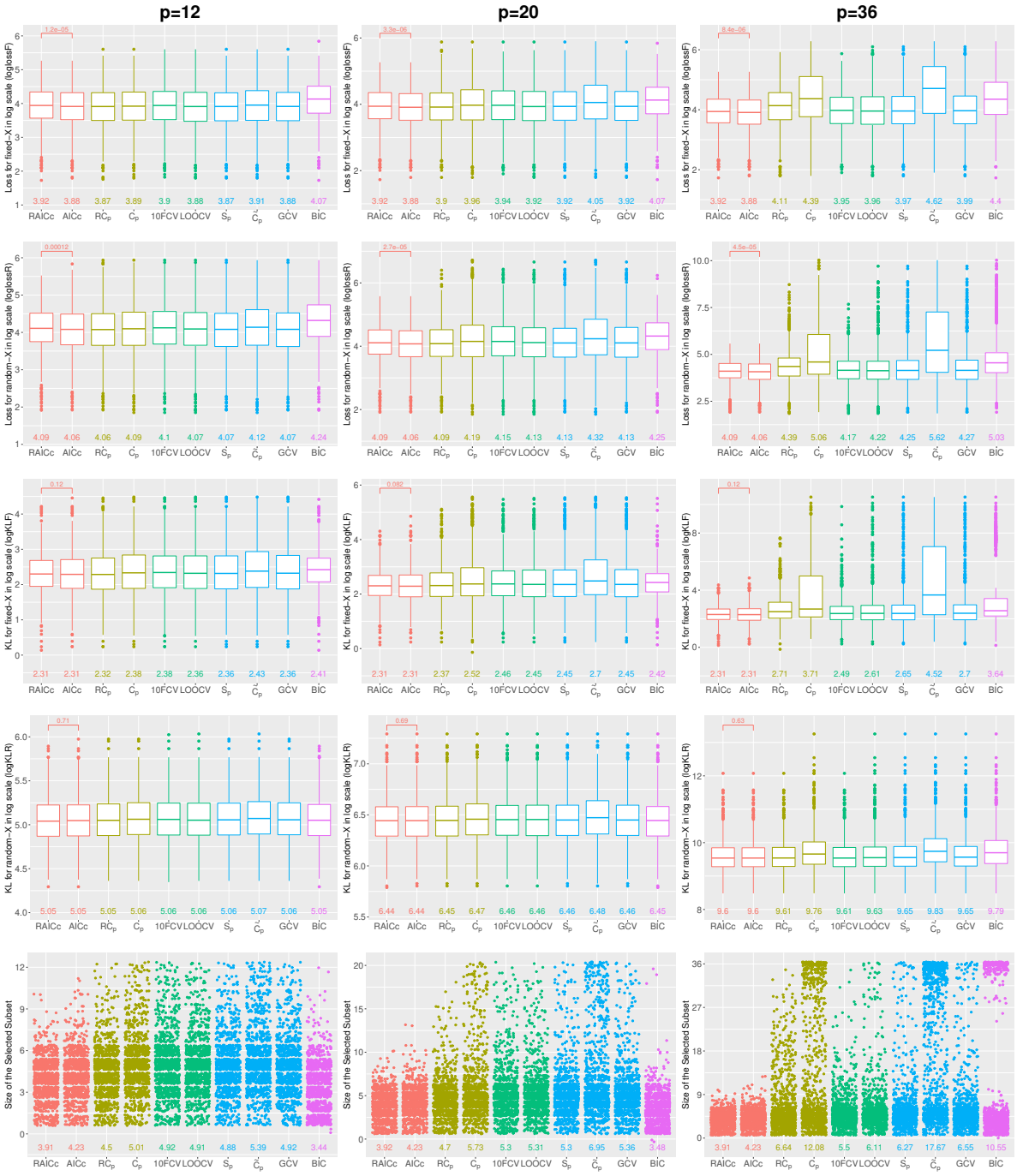

Figure S114: Variable selection, Random-X, Sparse-Ex2, $n = 40$, medium signal, and $\rho = 0.9$.

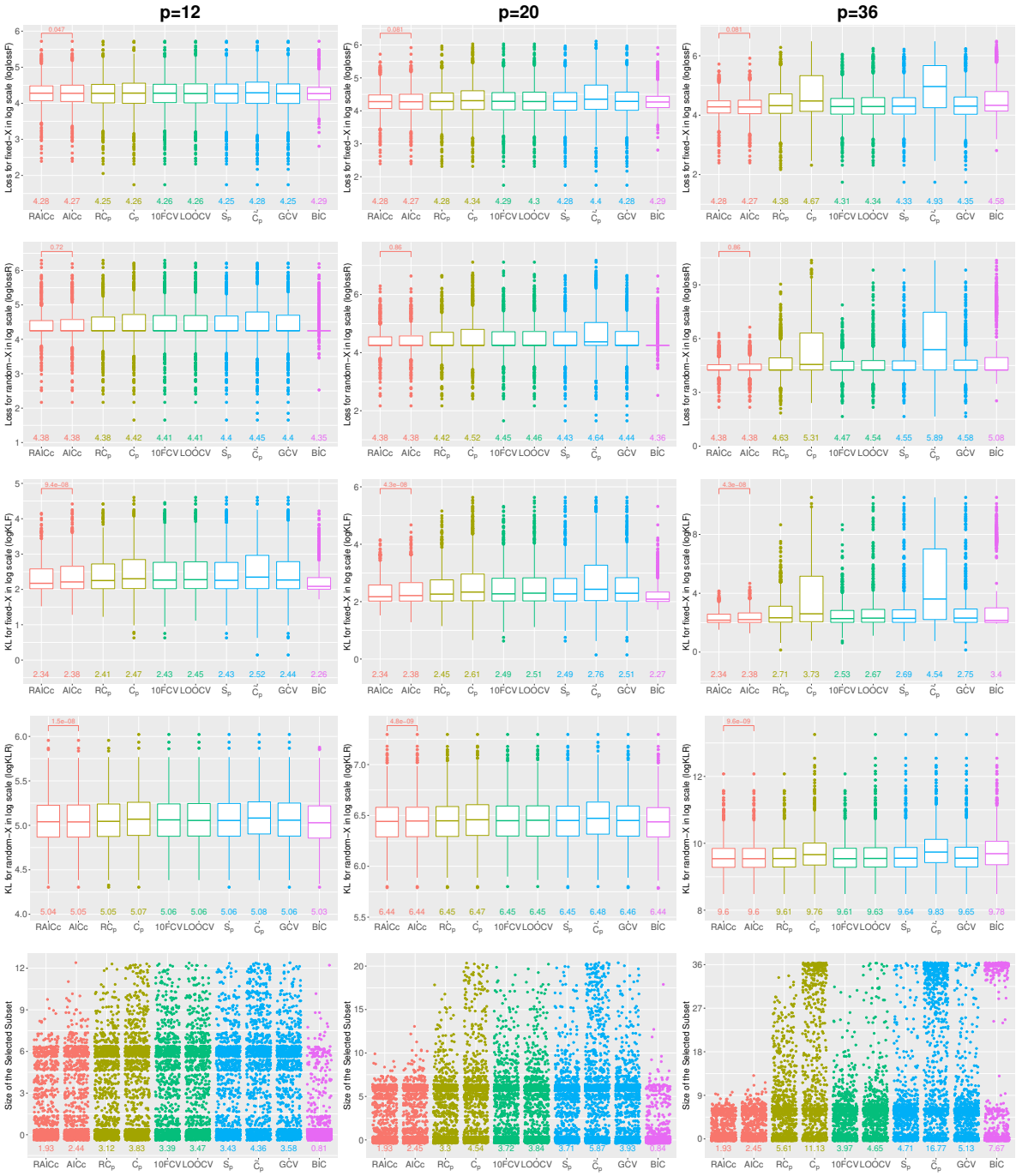

Figure S115: Variable selection, Random-X, Sparse-Ex2, $n = 40$, low signal, and $\rho = 0$.

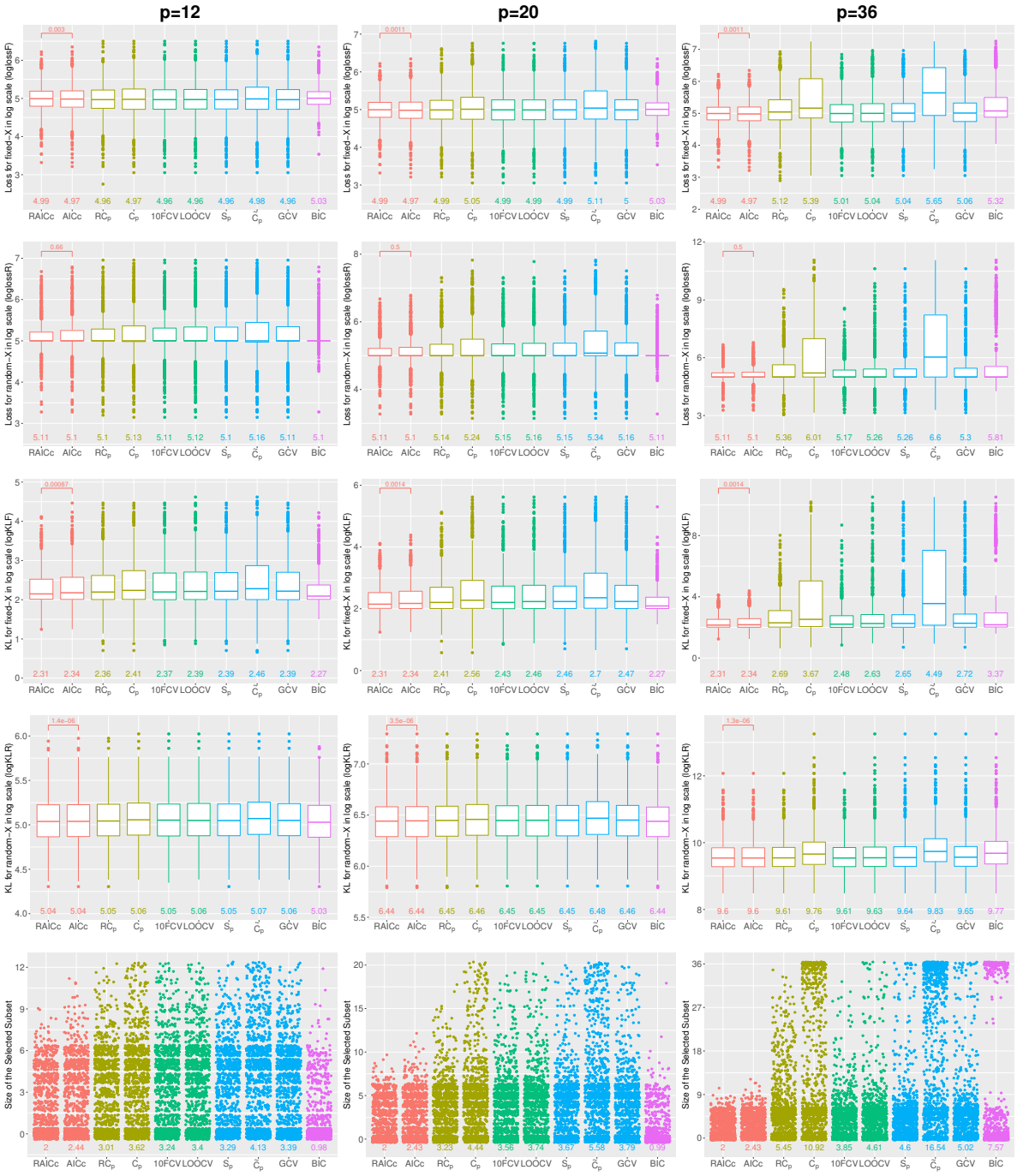

Figure S116: Variable selection, Random-X, Sparse-Ex2, $n = 40$, low signal, and $\rho = 0.5$.

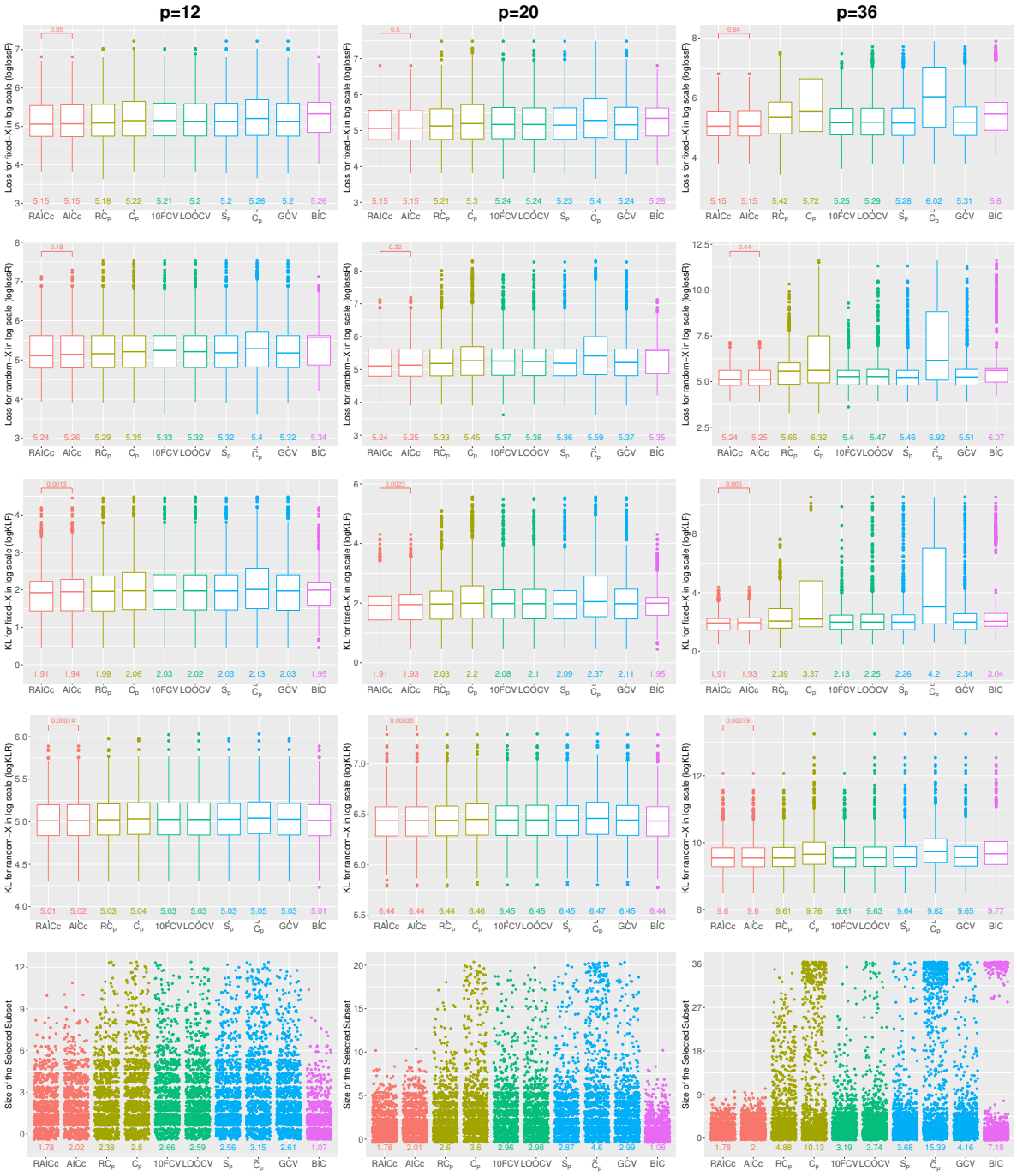

Figure S117: Variable selection, Random-X, Sparse-Ex2, $n = 40$, low signal, and $\rho = 0.9$.

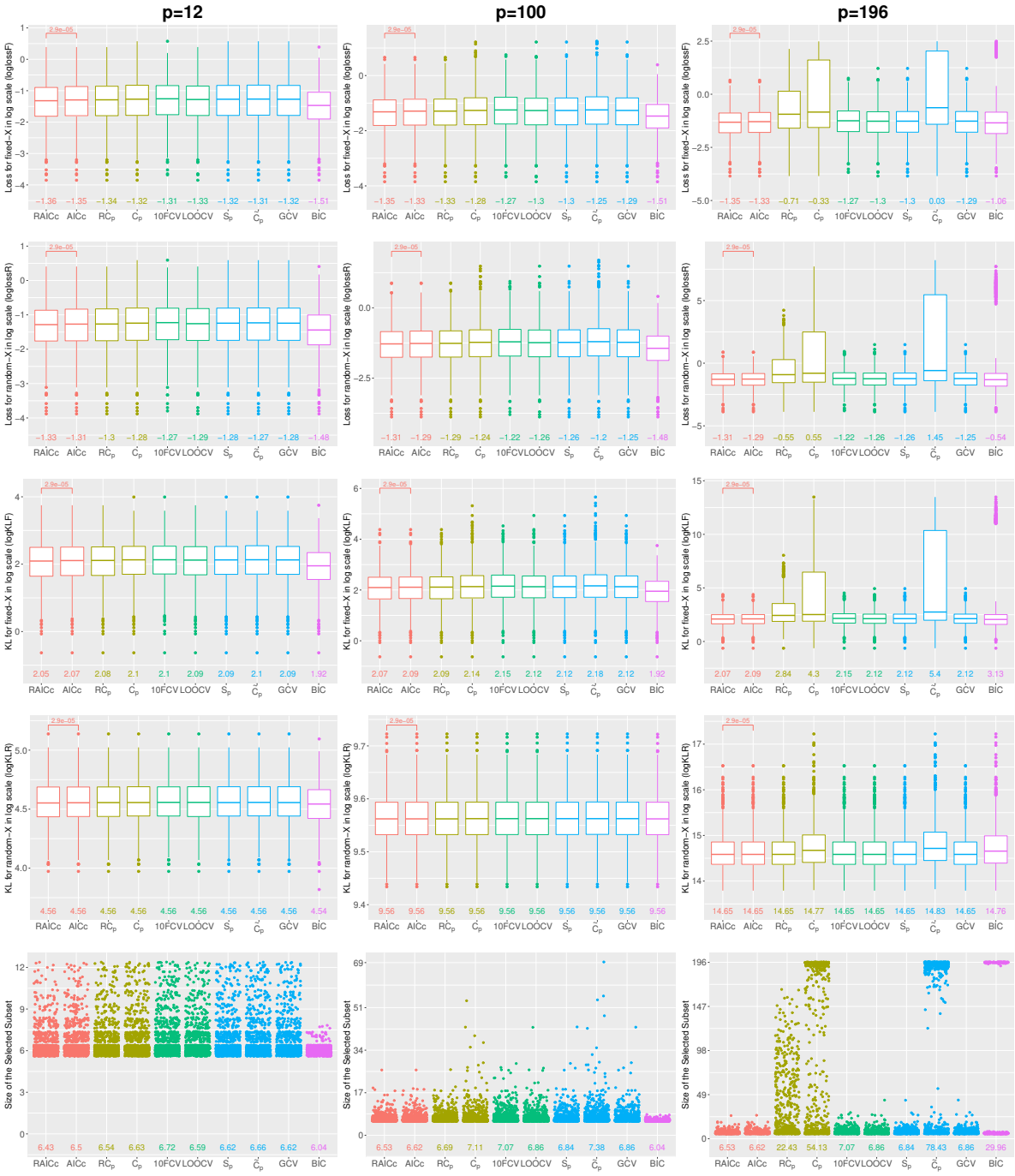

Figure S118: Variable selection, Random-X, Sparse-Ex2, $n = 200$, high signal, and $\rho = 0$.

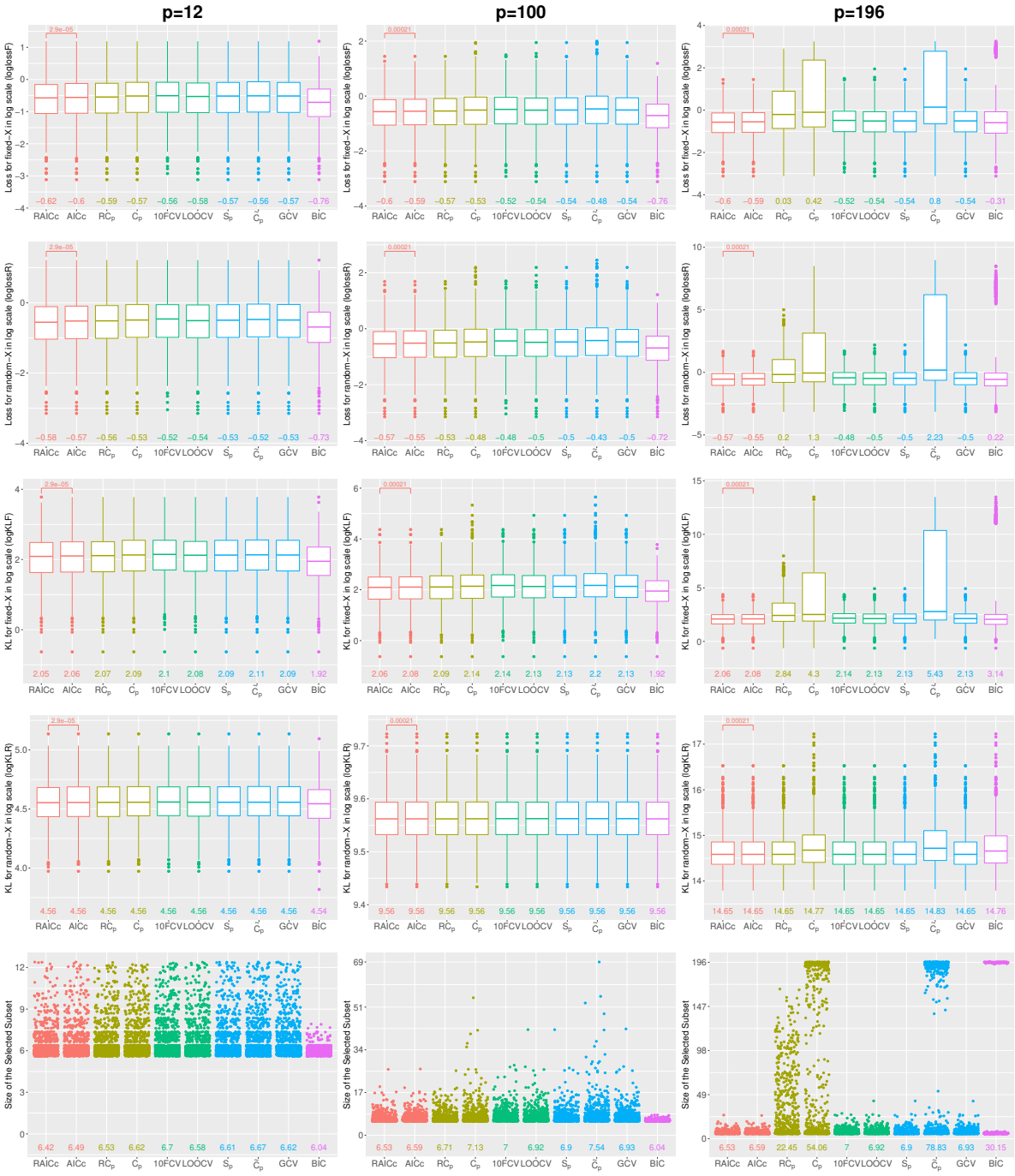

Figure S119: Variable selection, Random-X, Sparse-Ex2, $n = 200$, high signal, and $\rho = 0.5$.

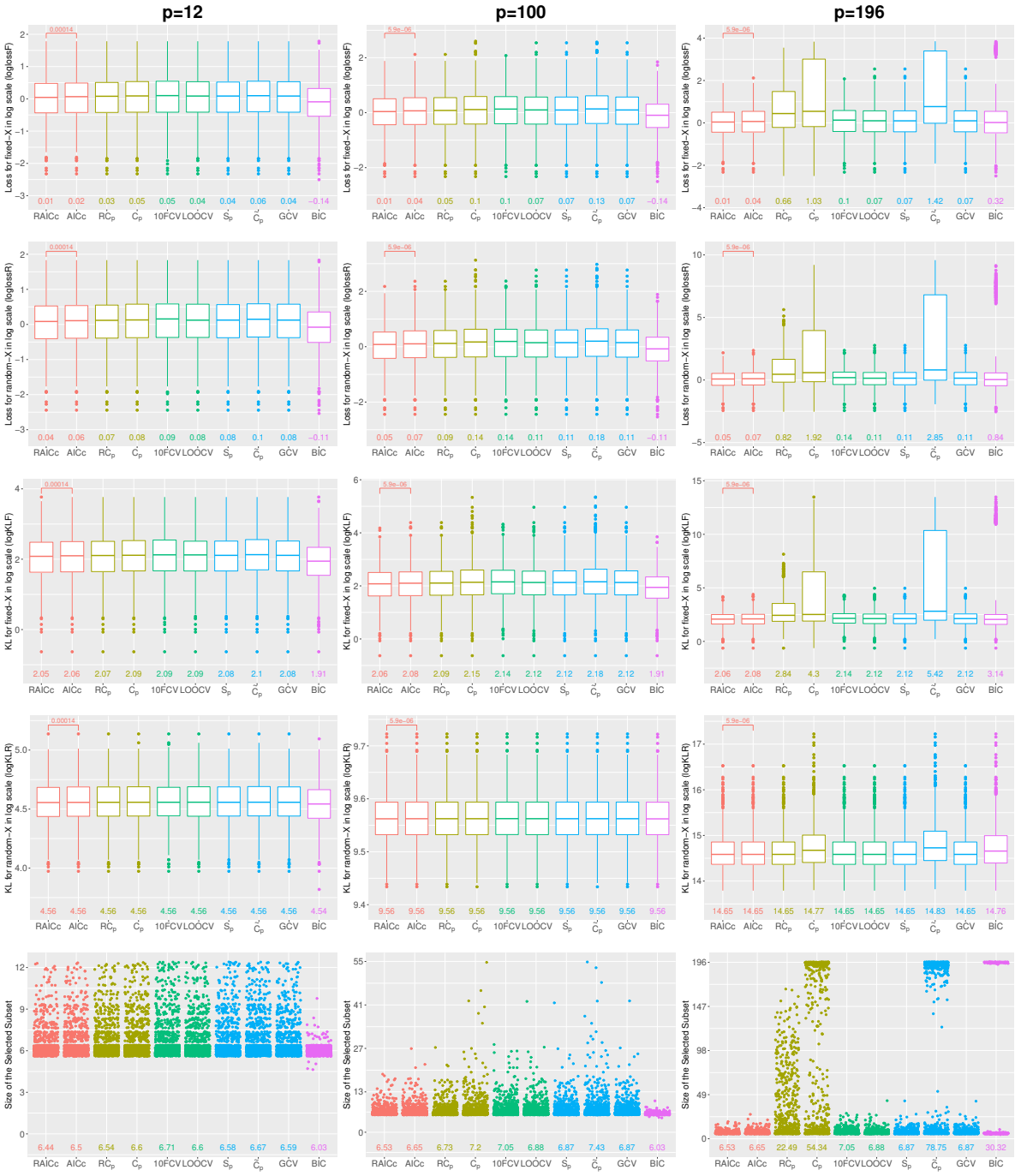

Figure S120: Variable selection, Random-X, Sparse-Ex2, $n = 200$, high signal, and $\rho = 0.9$.

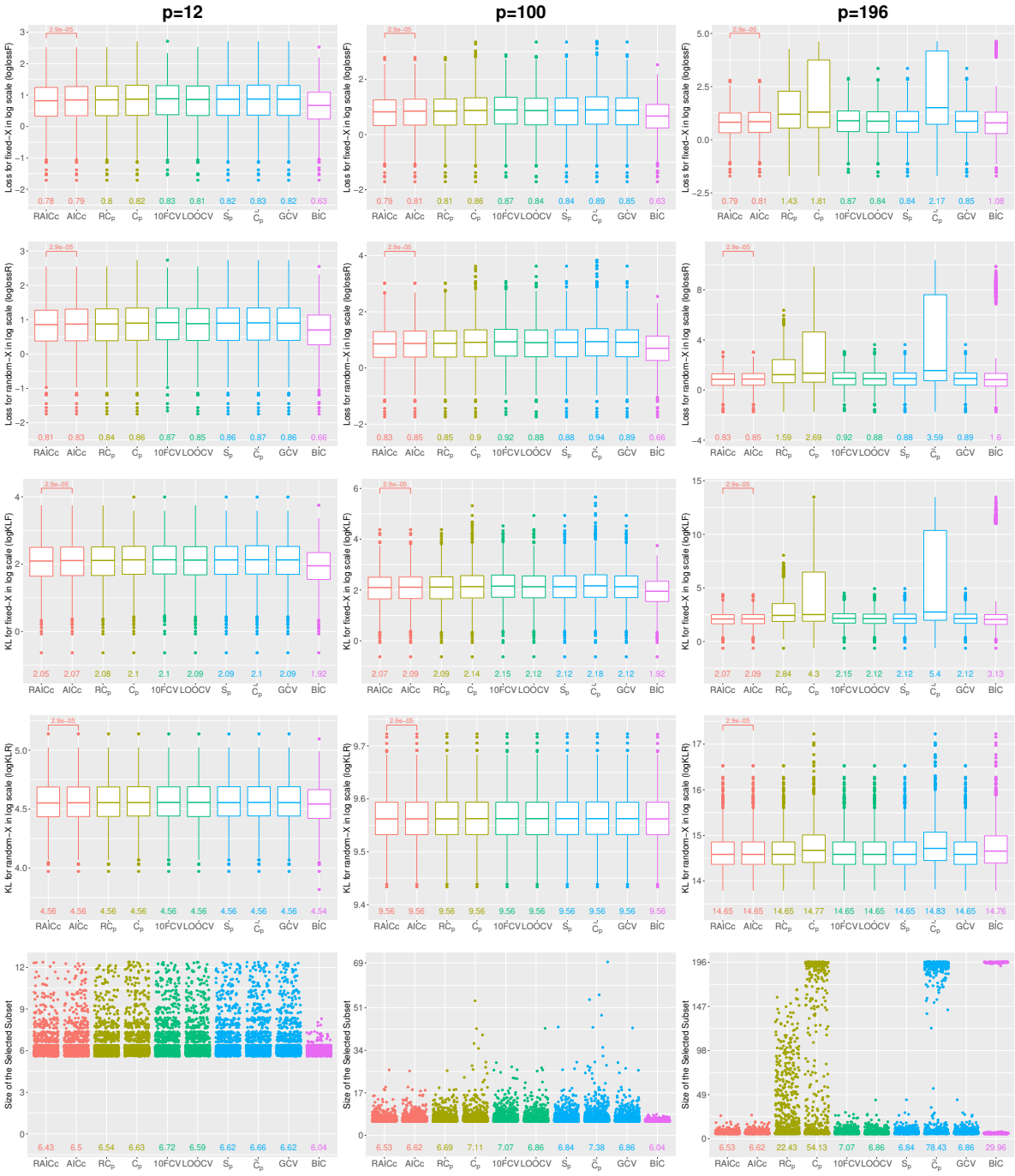

Figure S121: Variable selection, Random-X, Sparse-Ex2, $n = 200$, medium signal, and $\rho = 0$.

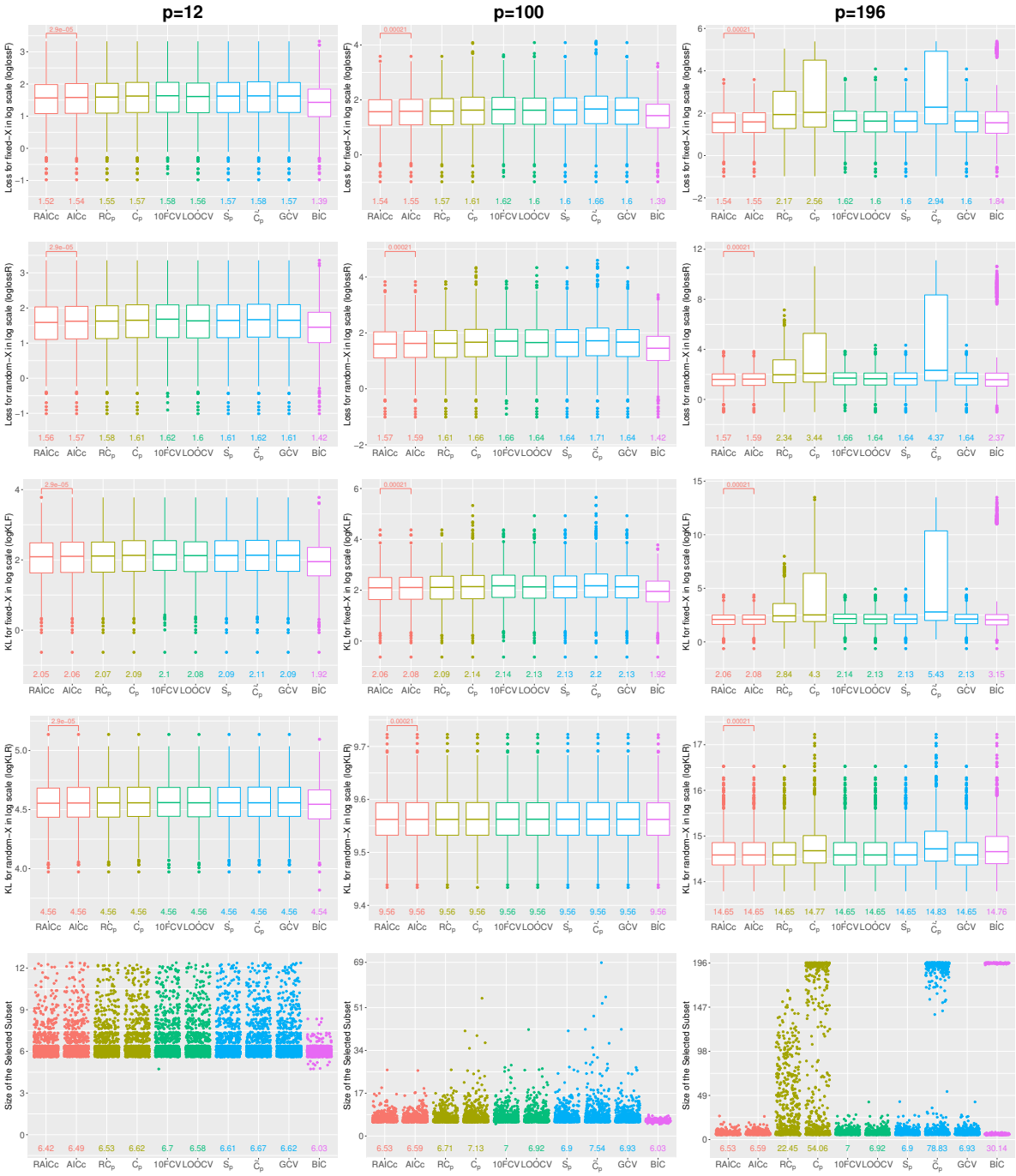

Figure S122: Variable selection, Random-X, Sparse-Ex2, $n = 200$, medium signal, and $\rho = 0.5$.

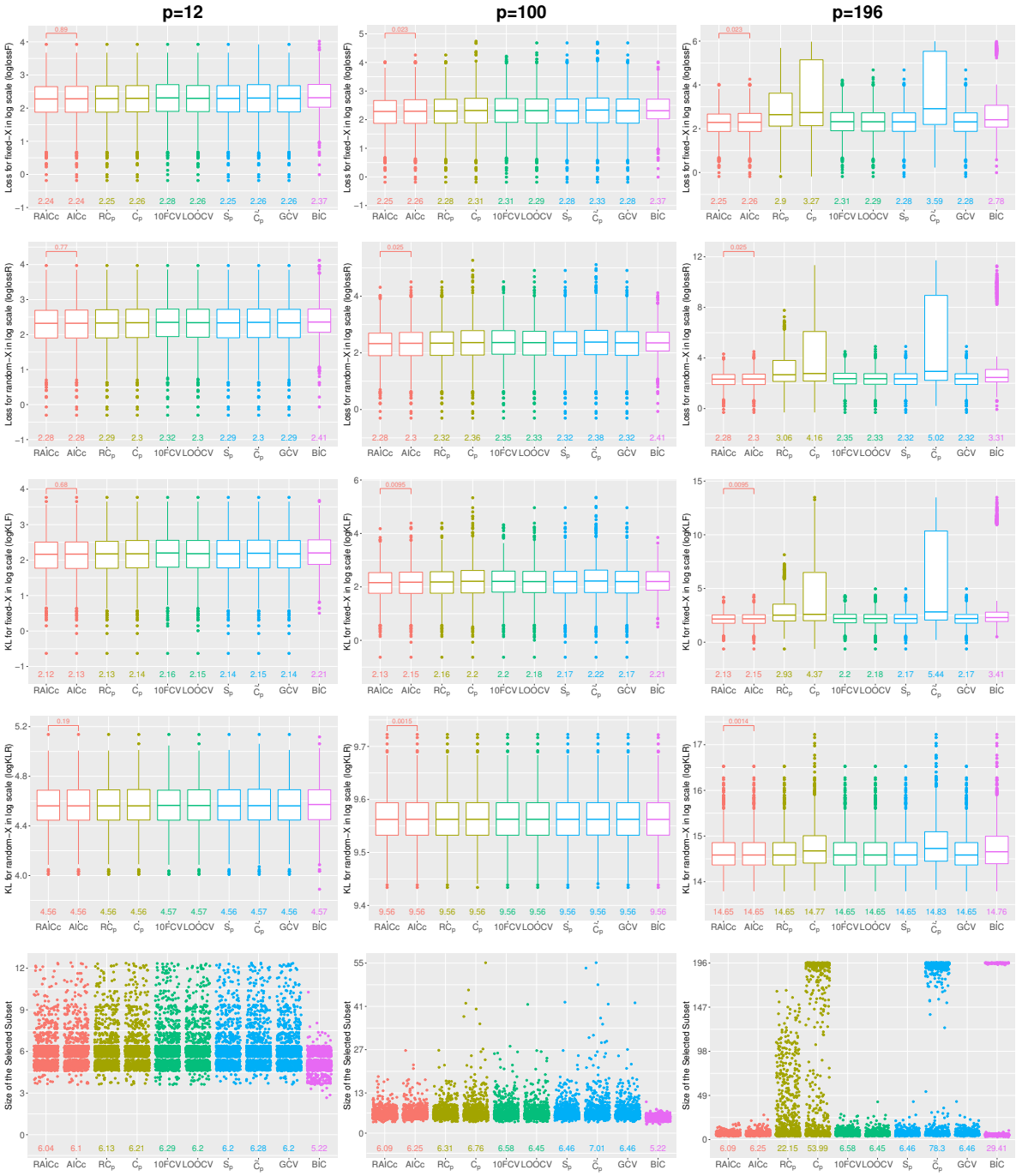

Figure S123: Variable selection, Random-X, Sparse-Ex2, $n = 200$, medium signal, and $\rho = 0.9$.

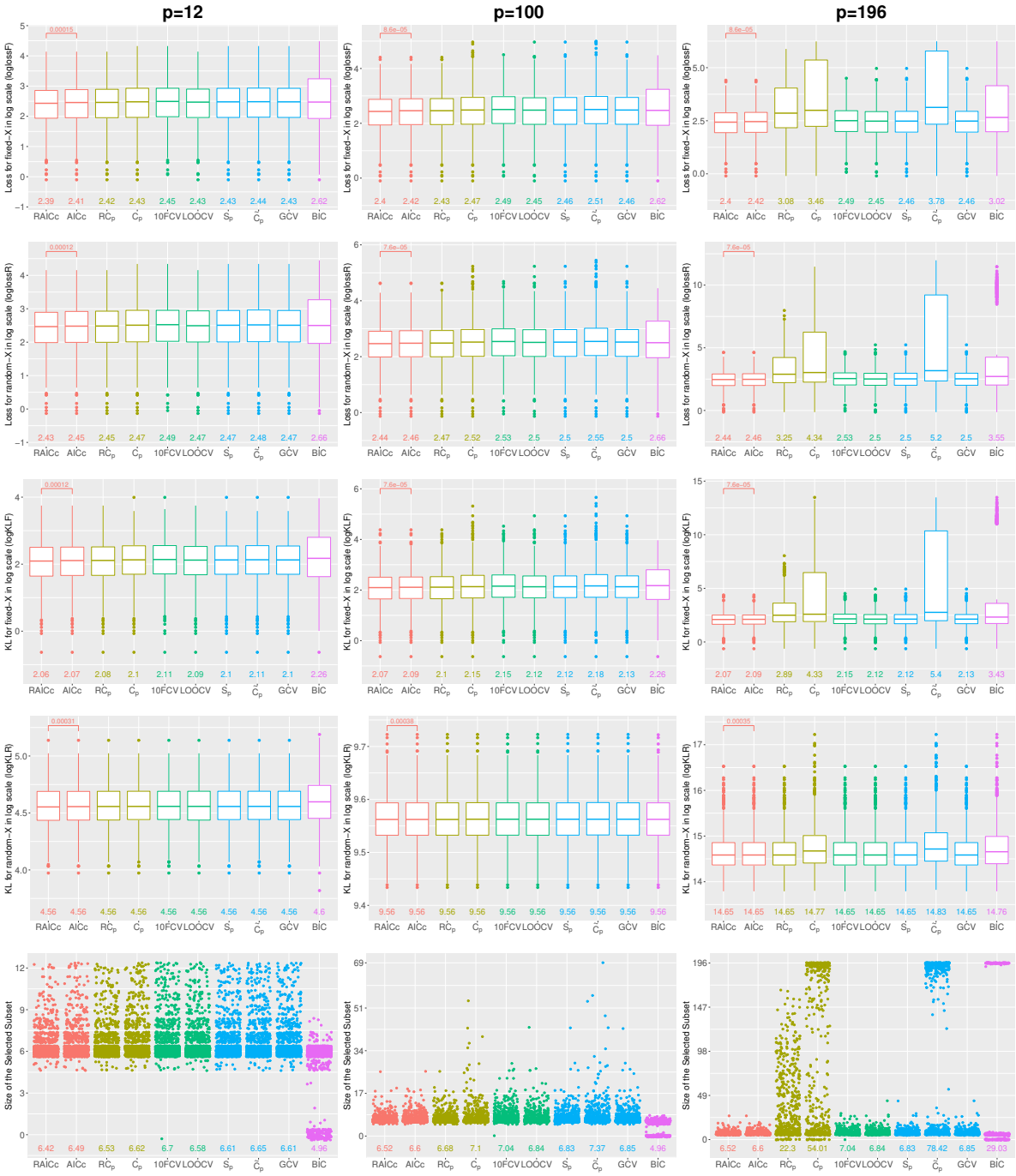

Figure S124: Variable selection, Random-X, Sparse-Ex2, $n = 200$, low signal, and $\rho = 0$.

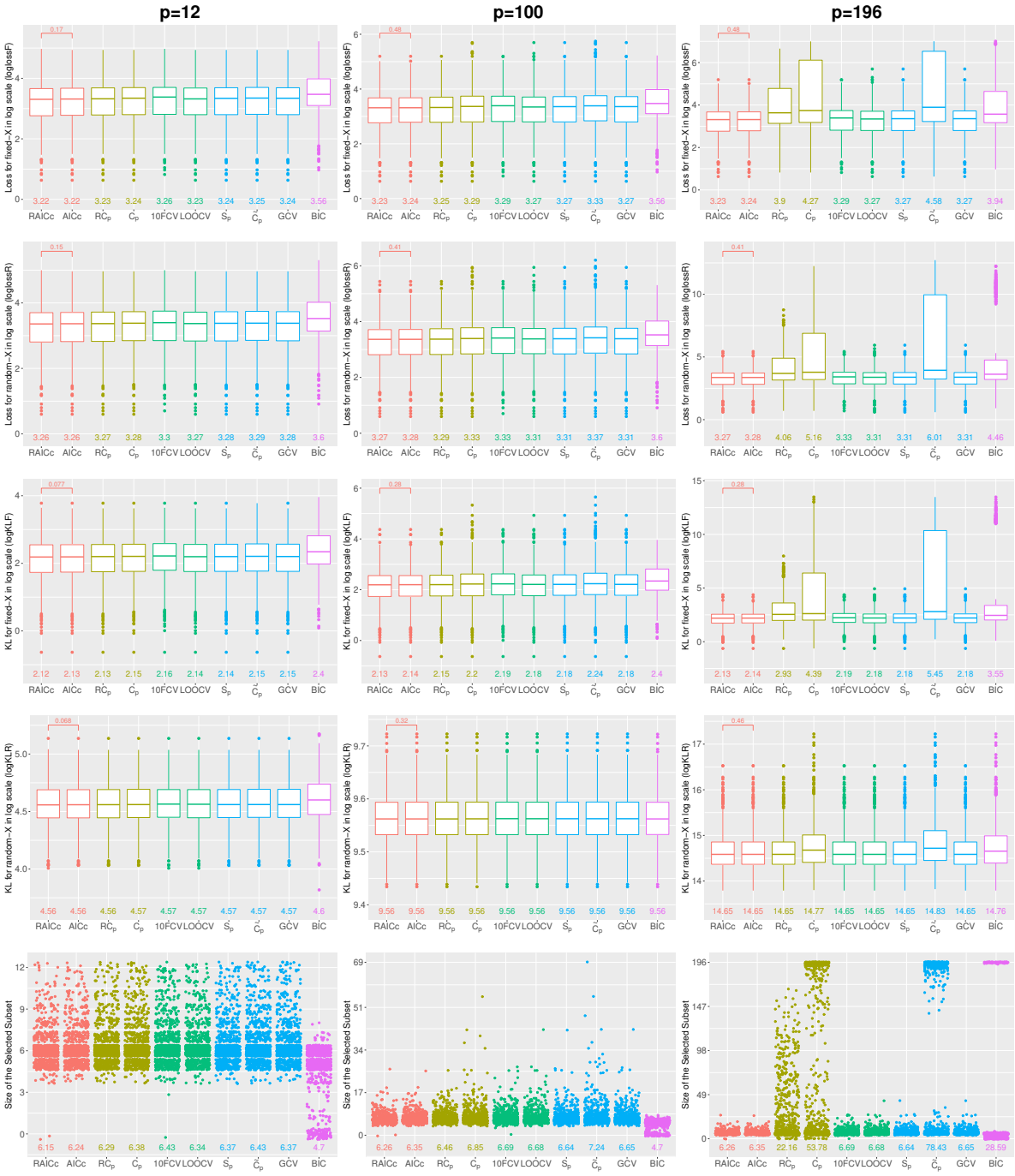

Figure S125: Variable selection, Random-X, Sparse-Ex2, $n = 200$, low signal, and $\rho = 0.5$.

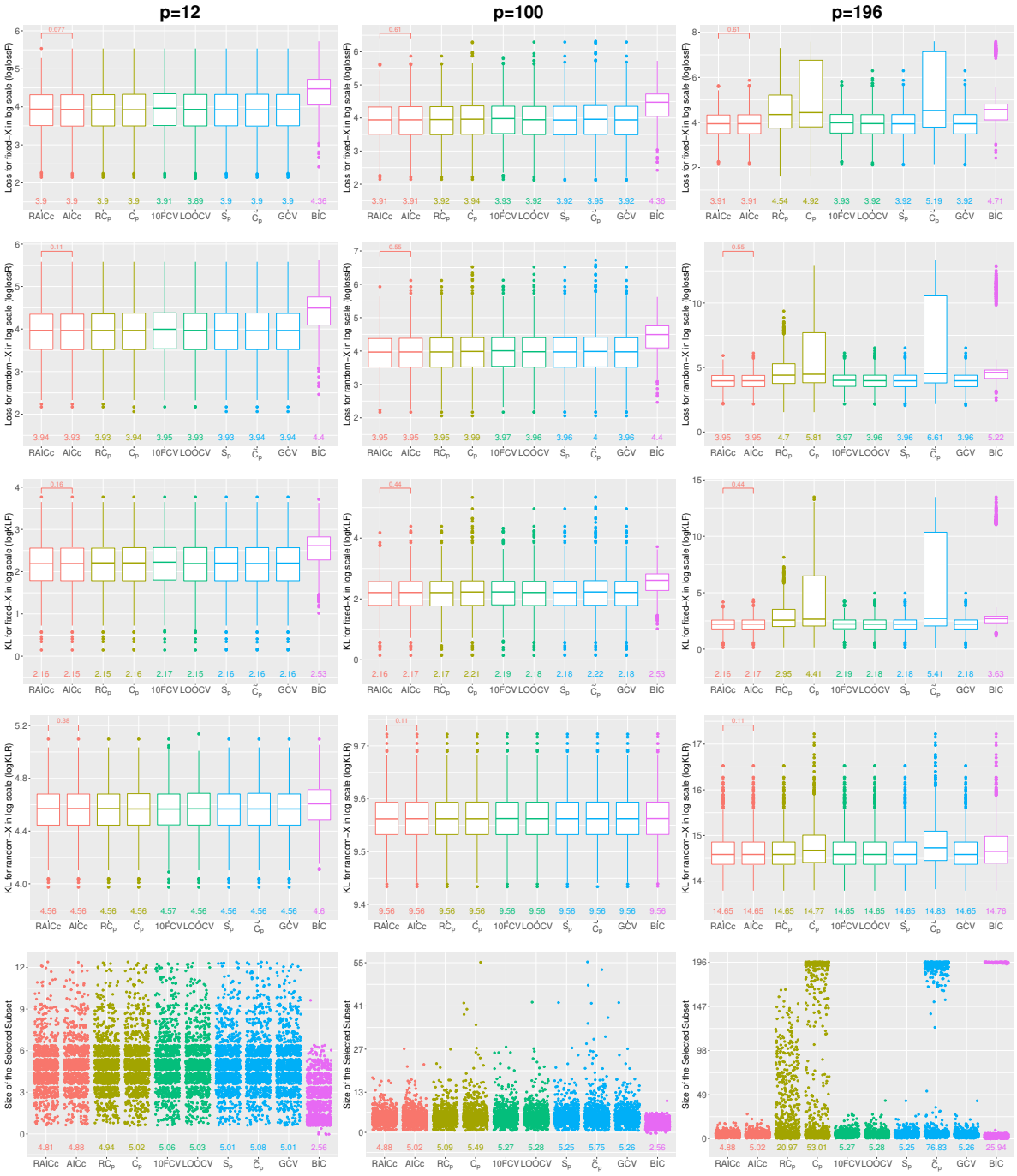

Figure S126: Variable selection, Random-X, Sparse-Ex2, $n = 200$, low signal, and $\rho = 0.9$.

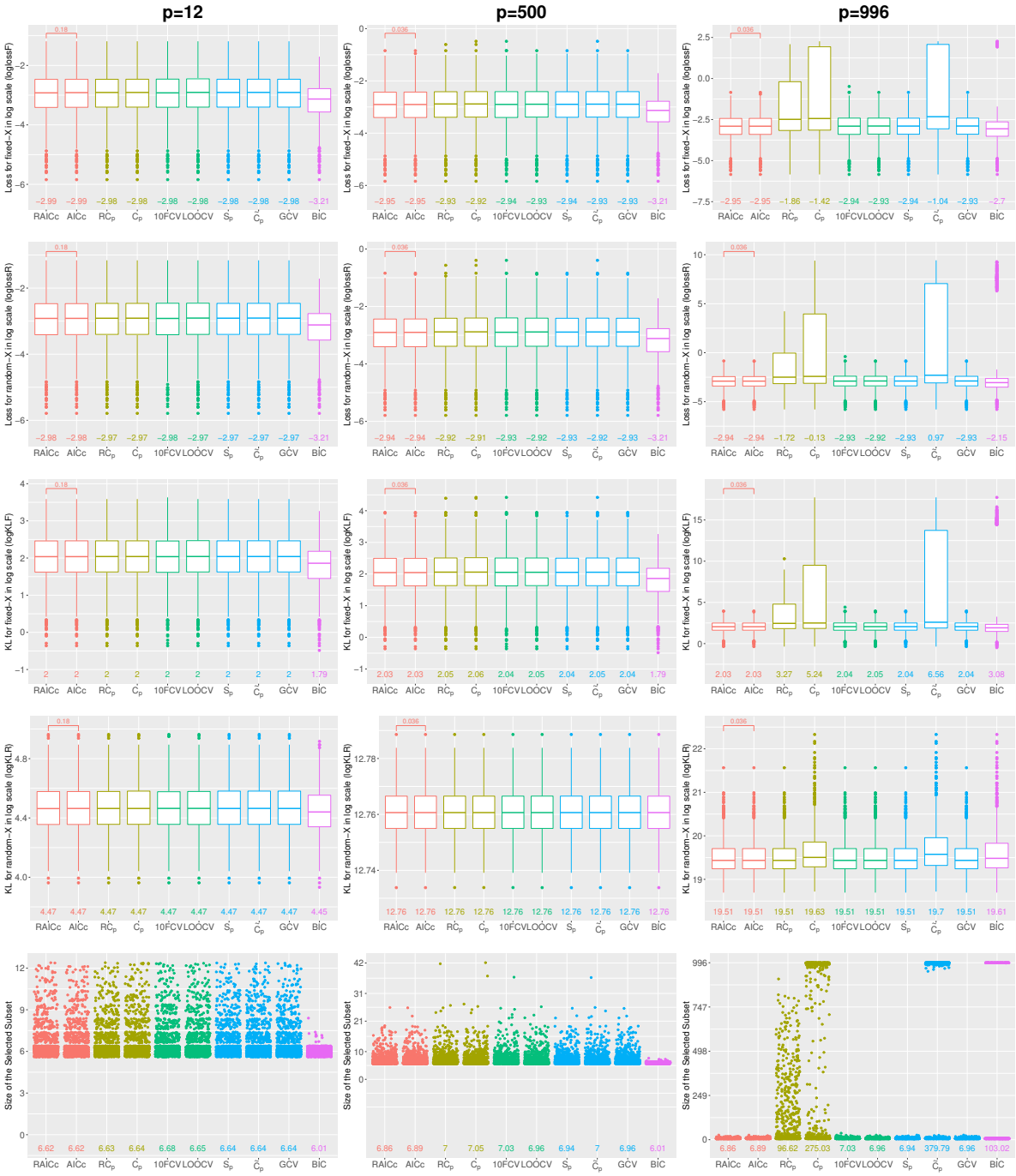

Figure S127: Variable selection, Random-X, Sparse-Ex2, $n = 1000$, high signal, and $\rho = 0$.

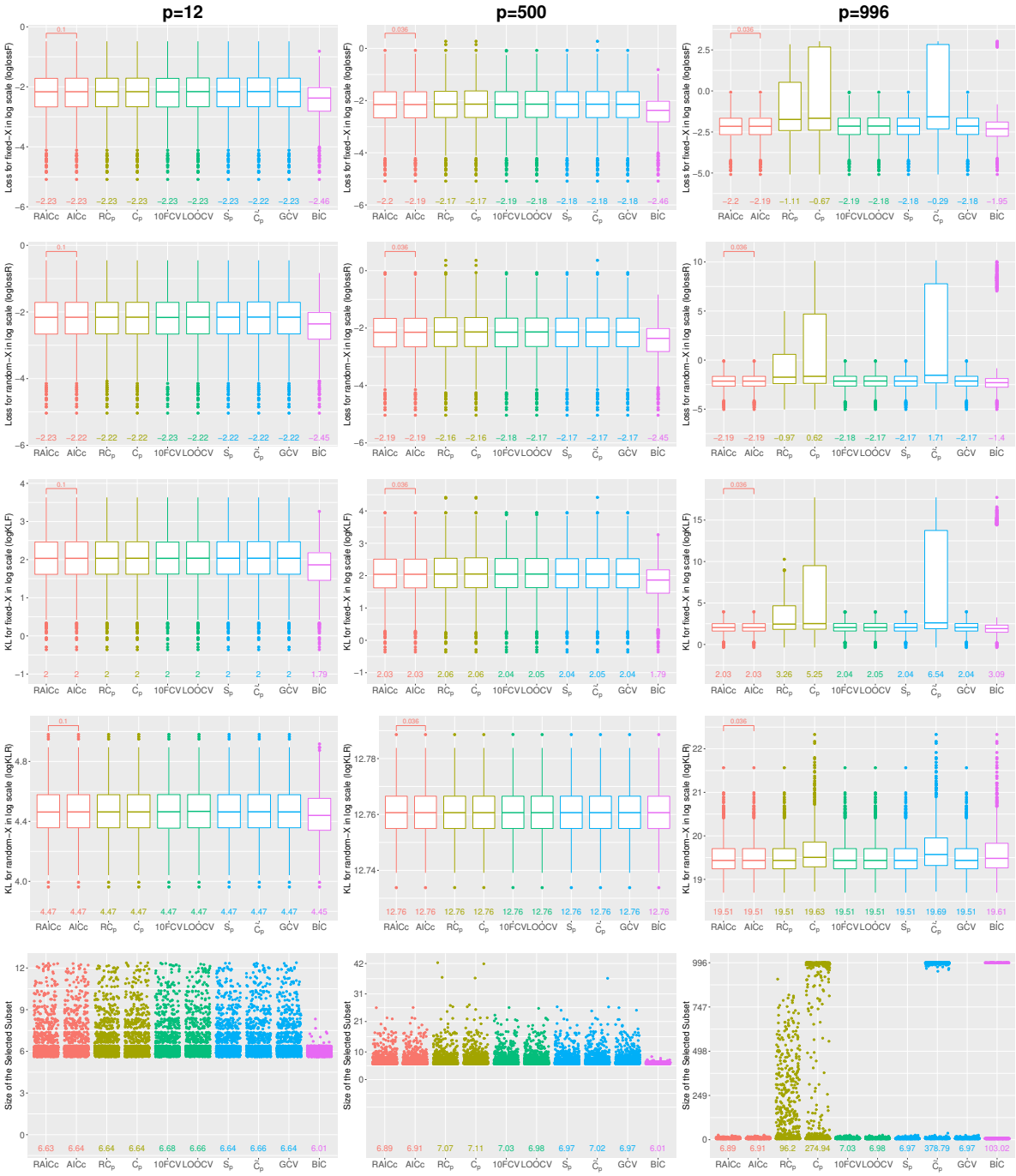

Figure S128: Variable selection, Random-X, Sparse-Ex2, $n = 1000$, high signal, and $\rho = 0.5$.

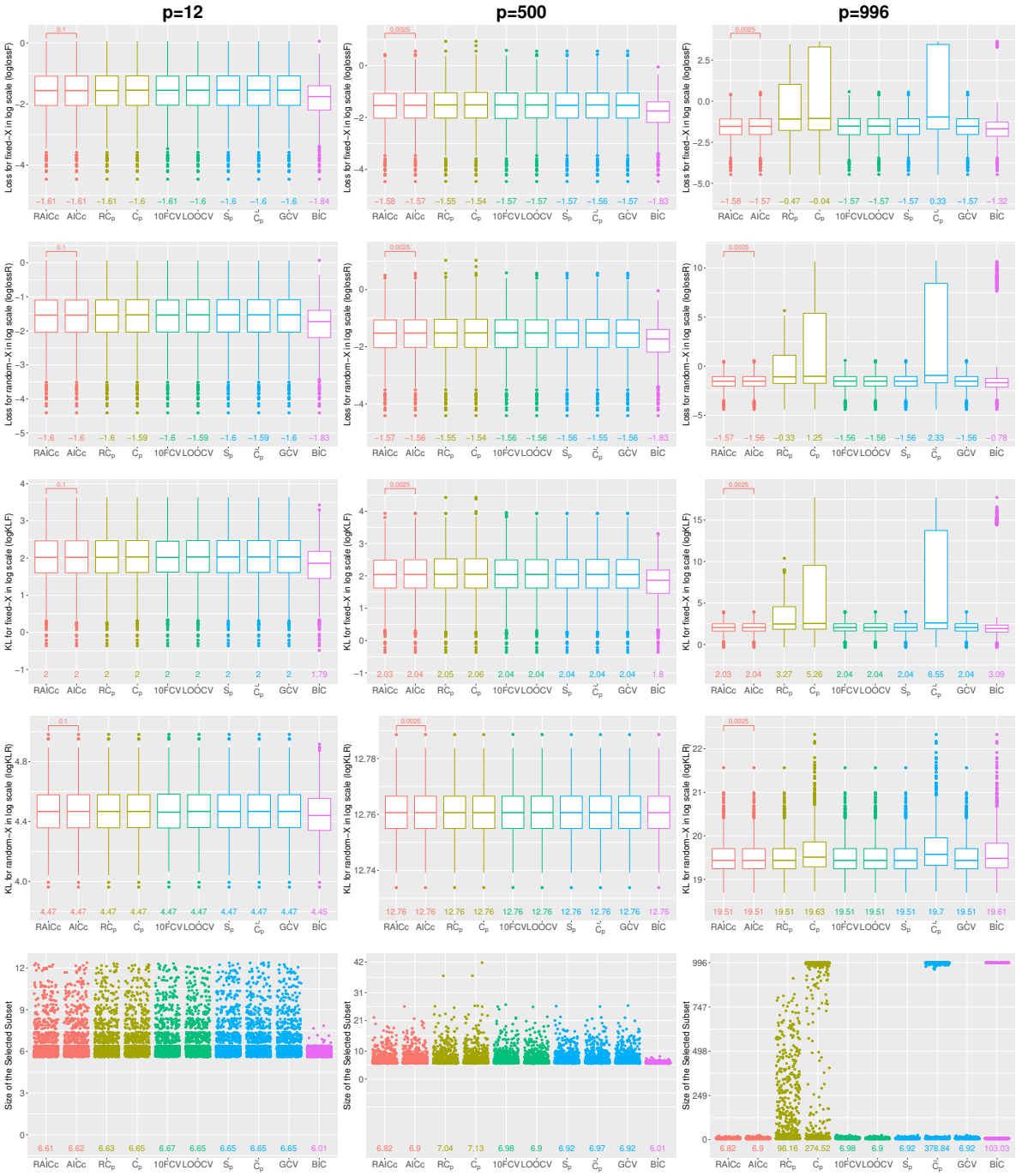

Figure S129: Variable selection, Random-X, Sparse-Ex2, $n = 1000$, high signal, and $\rho = 0.9$.

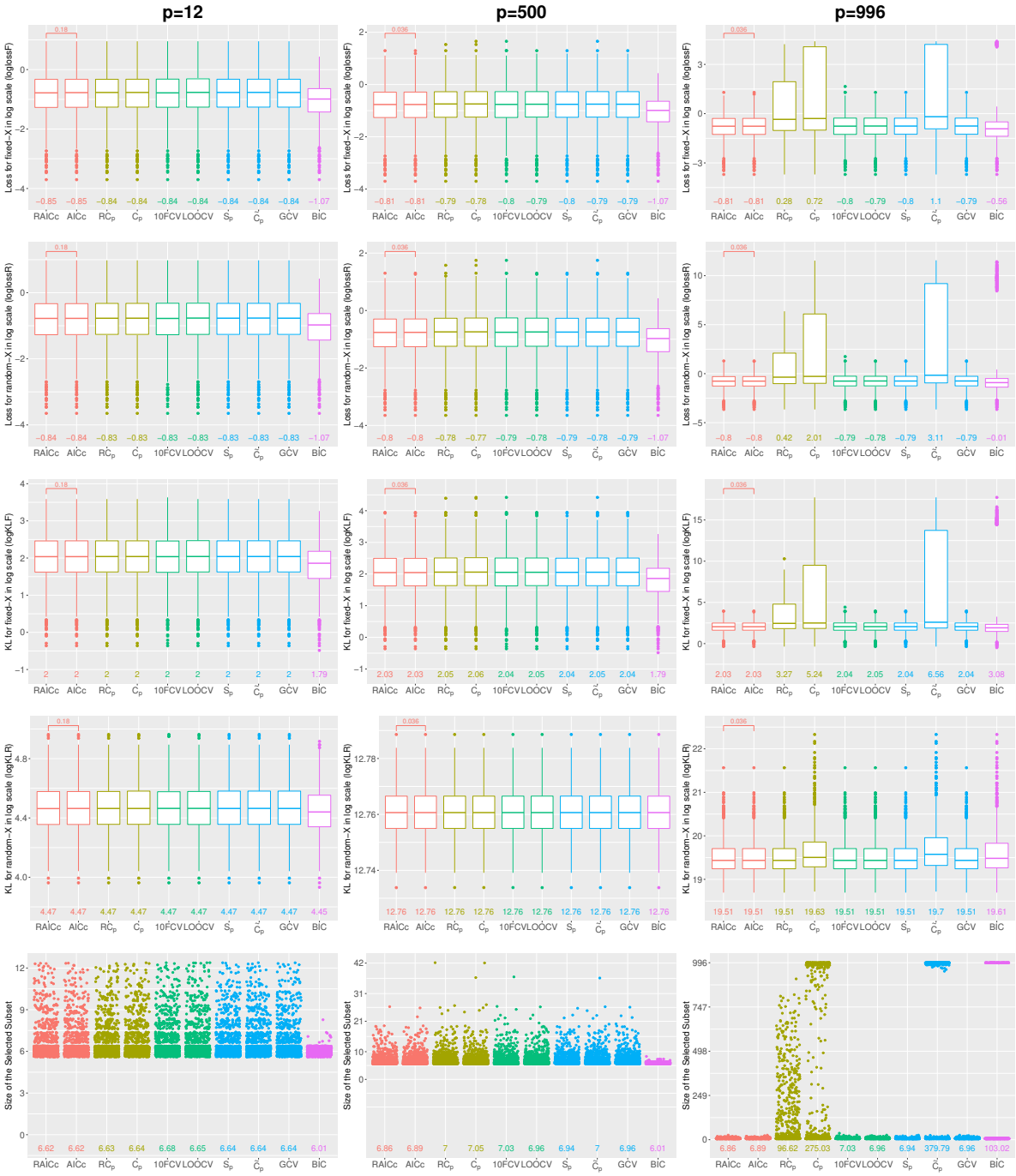

Figure S130: Variable selection, Random-X, Sparse-Ex2, $n = 1000$, medium signal, and $\rho = 0$.

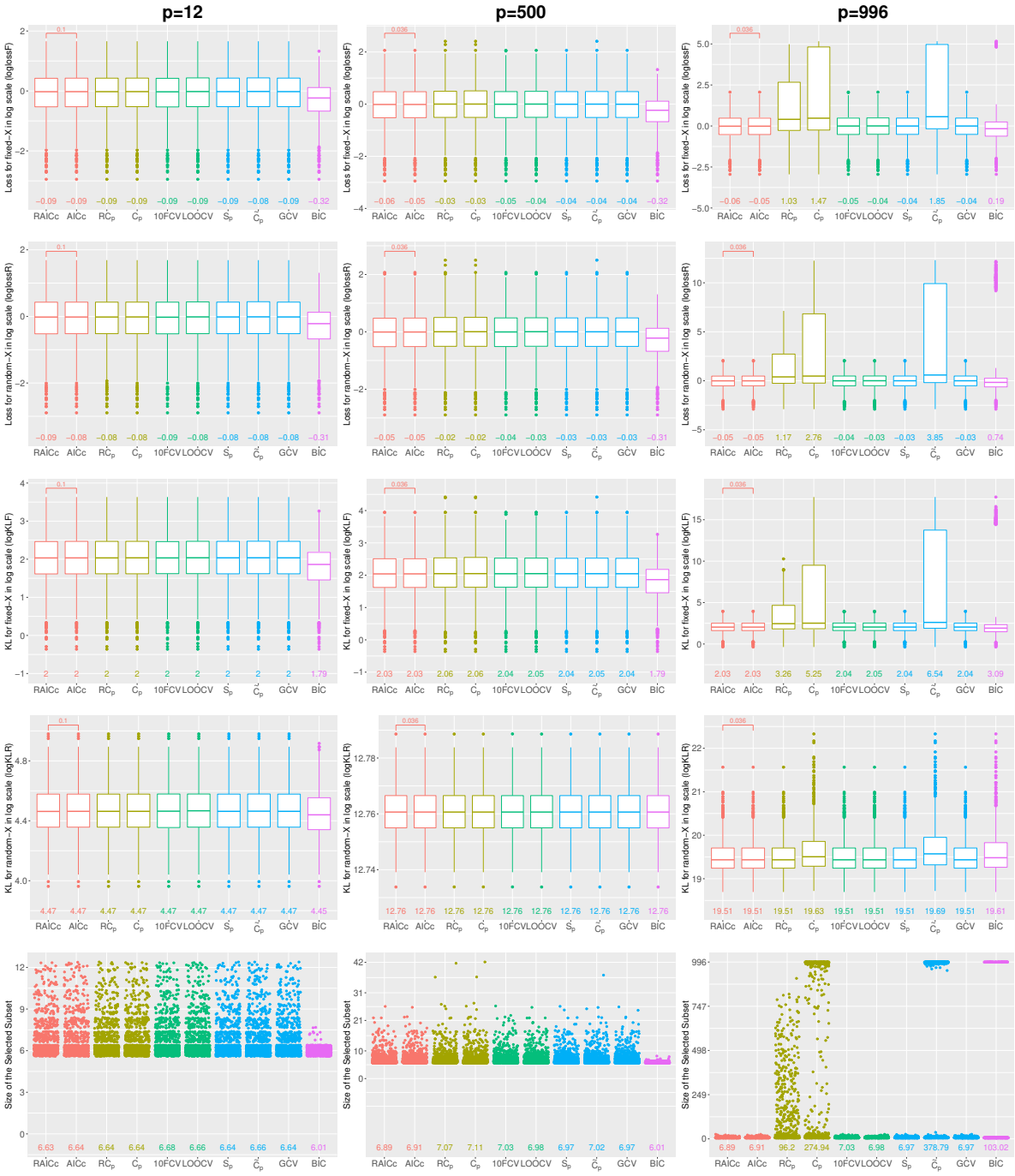

Figure S131: Variable selection, Random-X, Sparse-Ex2, $n = 1000$, medium signal, and $\rho = 0.5$.

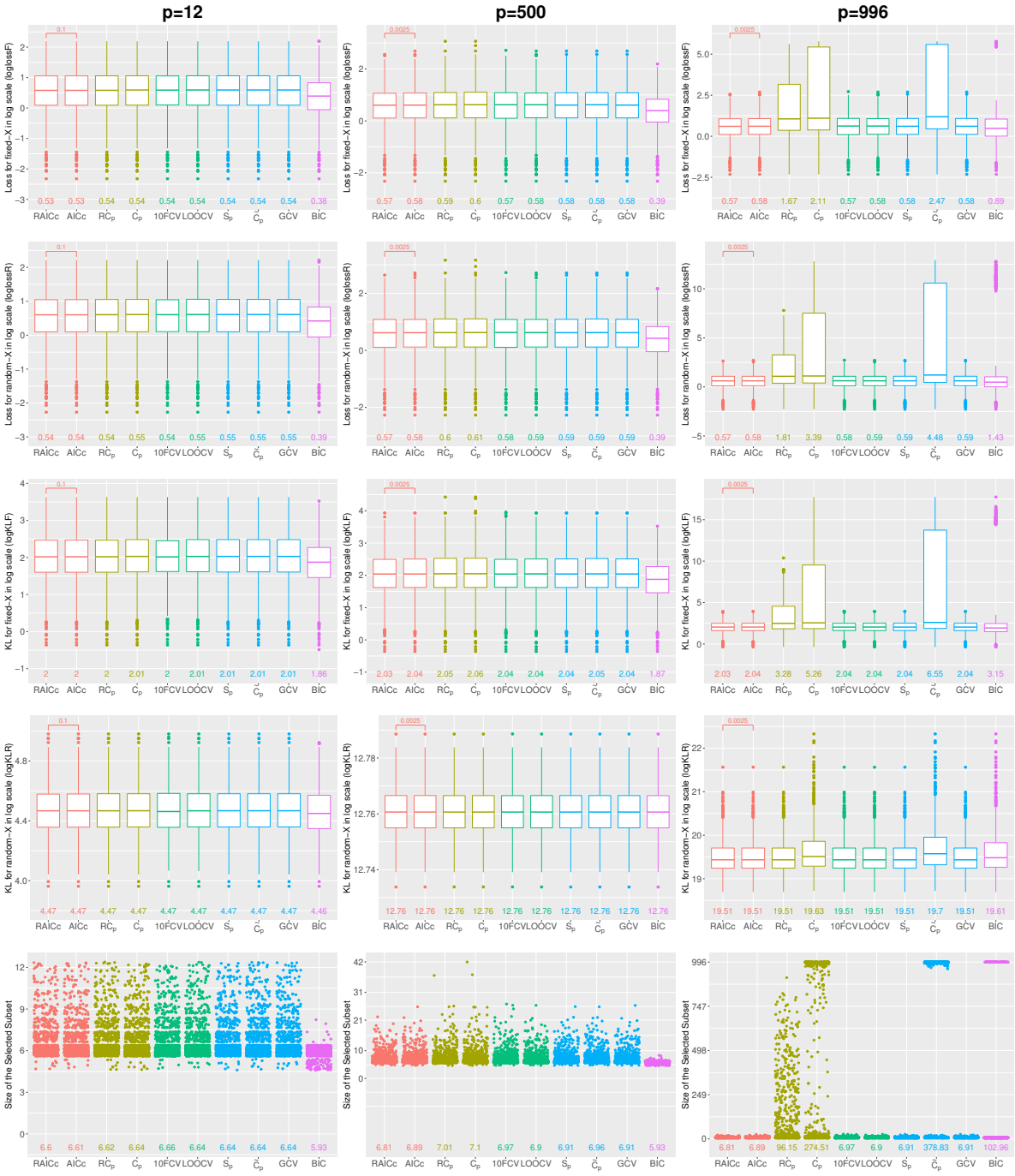

Figure S132: Variable selection, Random-X, Sparse-Ex2, $n = 1000$, medium signal, and $\rho = 0.9$.

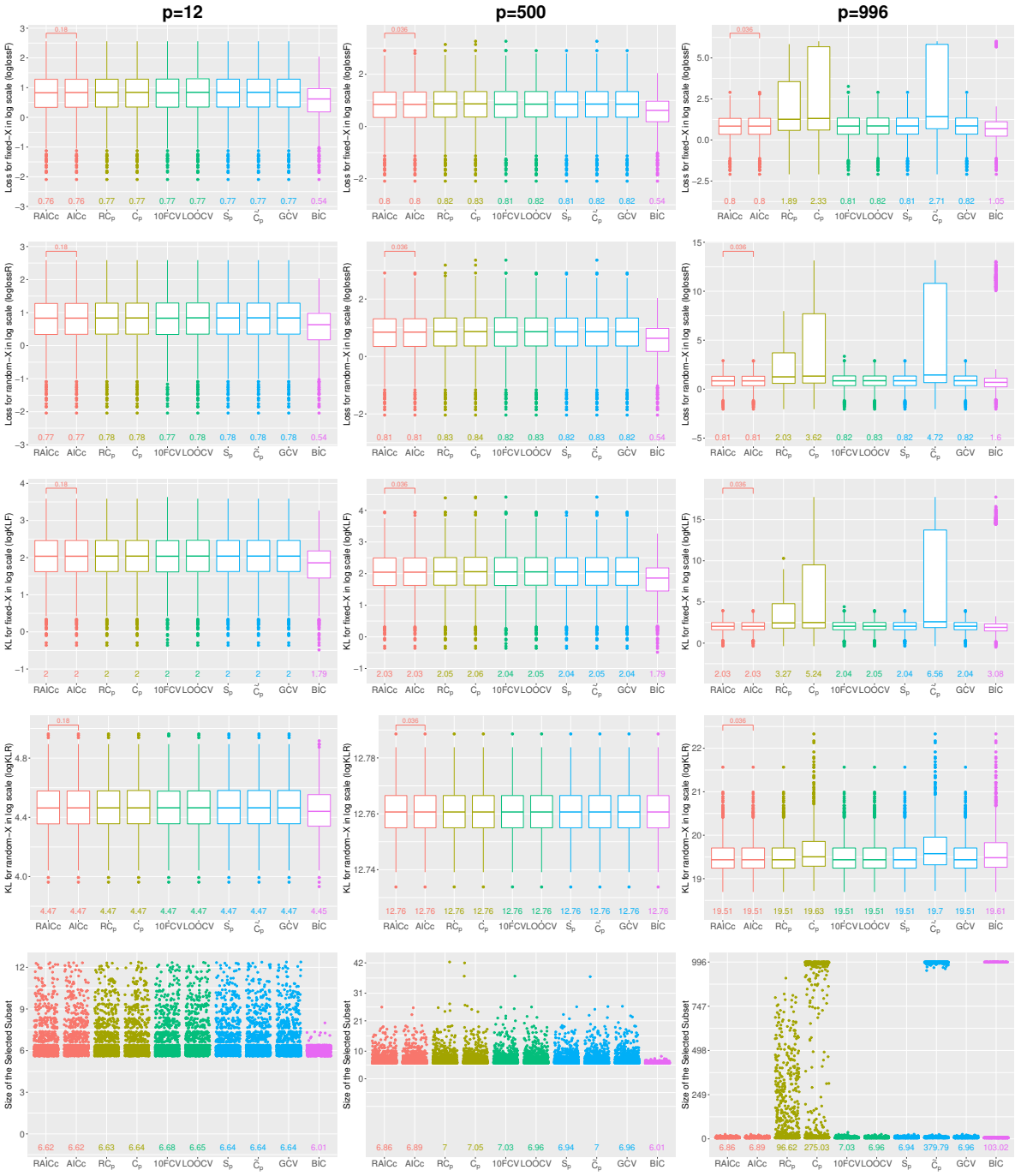

Figure S133: Variable selection, Random-X, Sparse-Ex2, $n = 1000$, low signal, and $\rho = 0$.

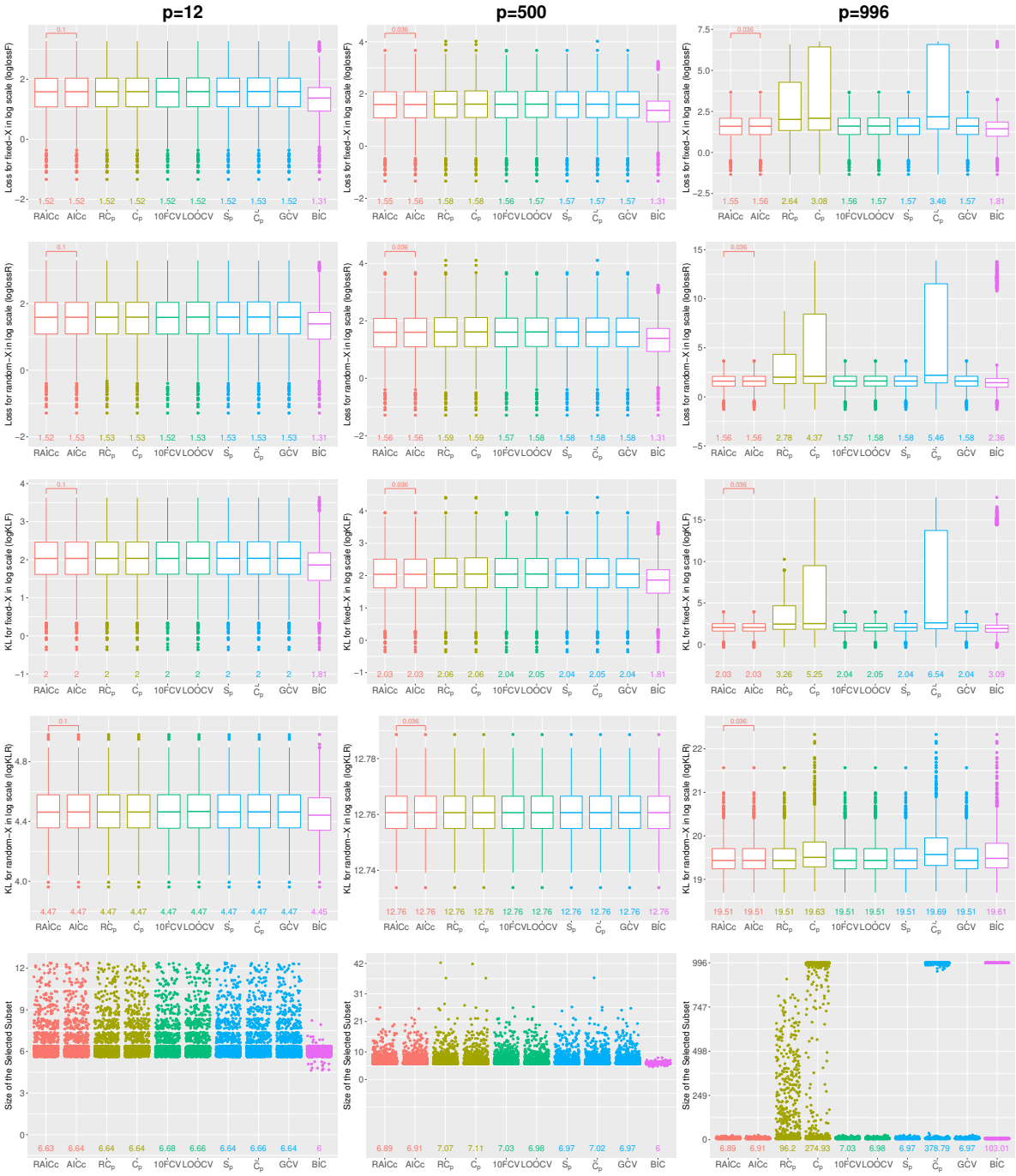

Figure S134: Variable selection, Random-X, Sparse-Ex2, $n = 1000$, low signal, and $\rho = 0.5$.

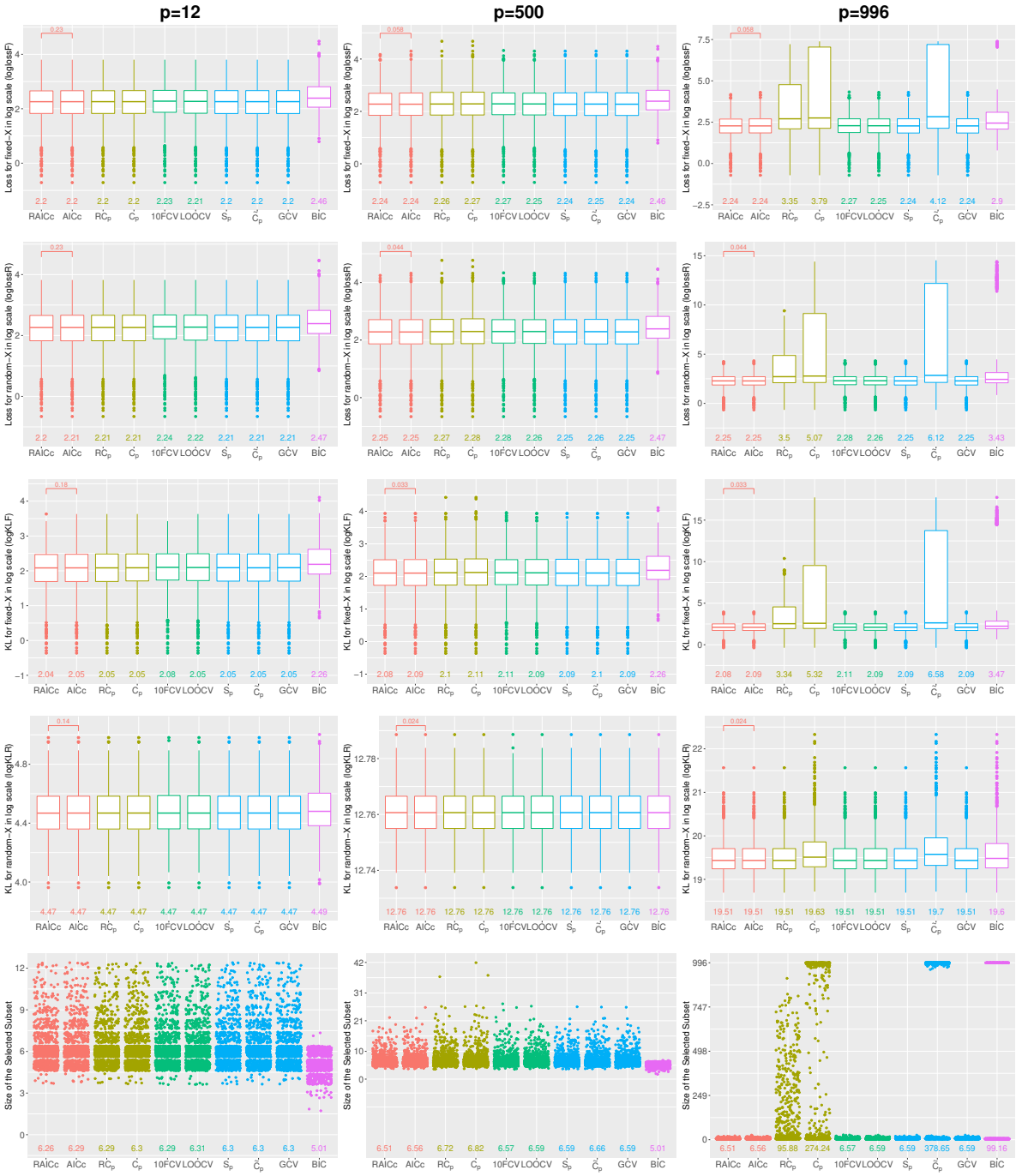

Figure S135: Variable selection, Random-X, Sparse-Ex2, $n = 1000$, low signal, and $\rho = 0.9$.

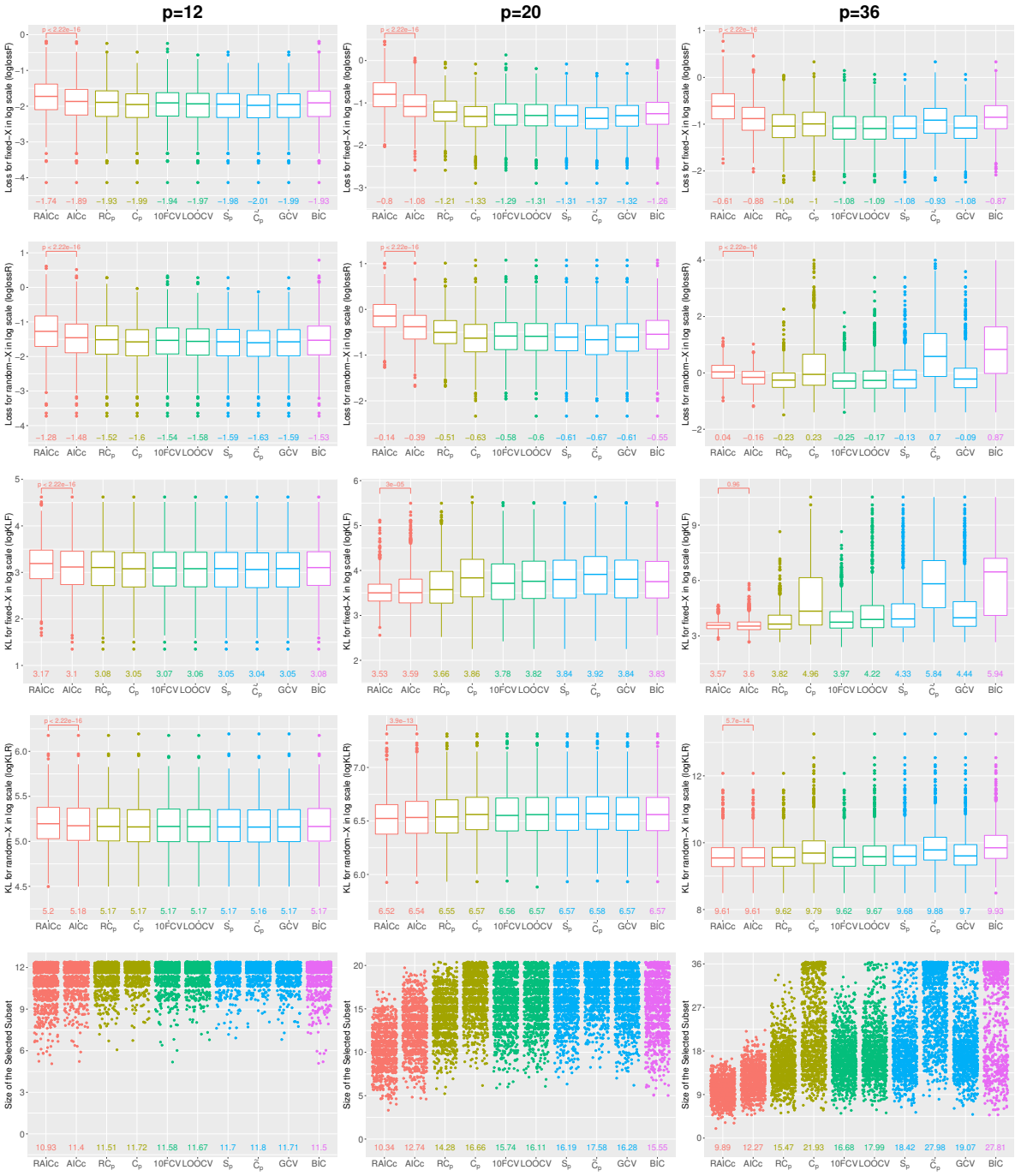

Figure S136: Variable selection, Random-X, Dense-Ex1, $n = 40$, high signal, and $\rho = 0$.

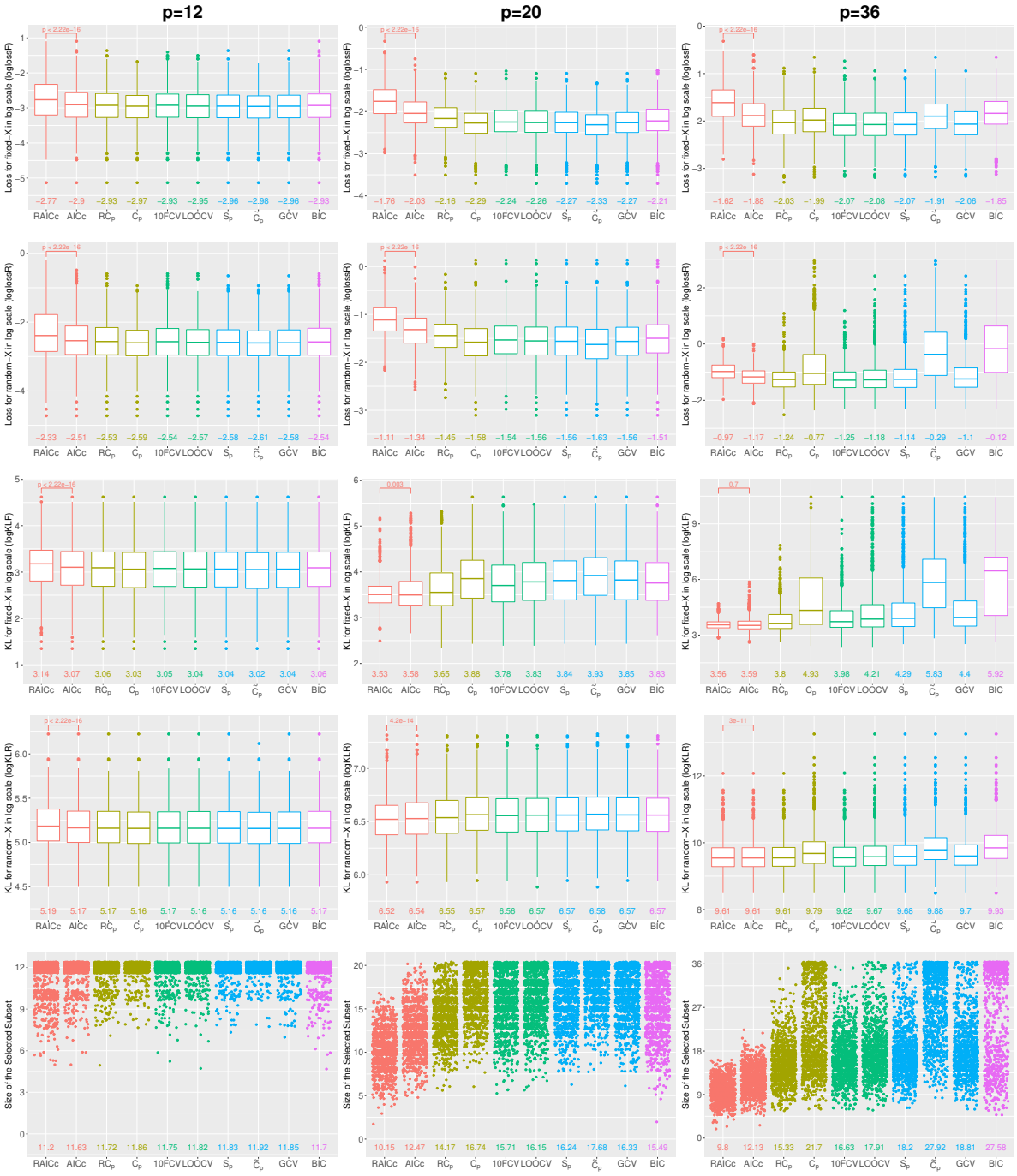

Figure S137: Variable selection, Random-X, Dense-Ex1, $n = 40$, high signal, and $\rho = 0.5$.

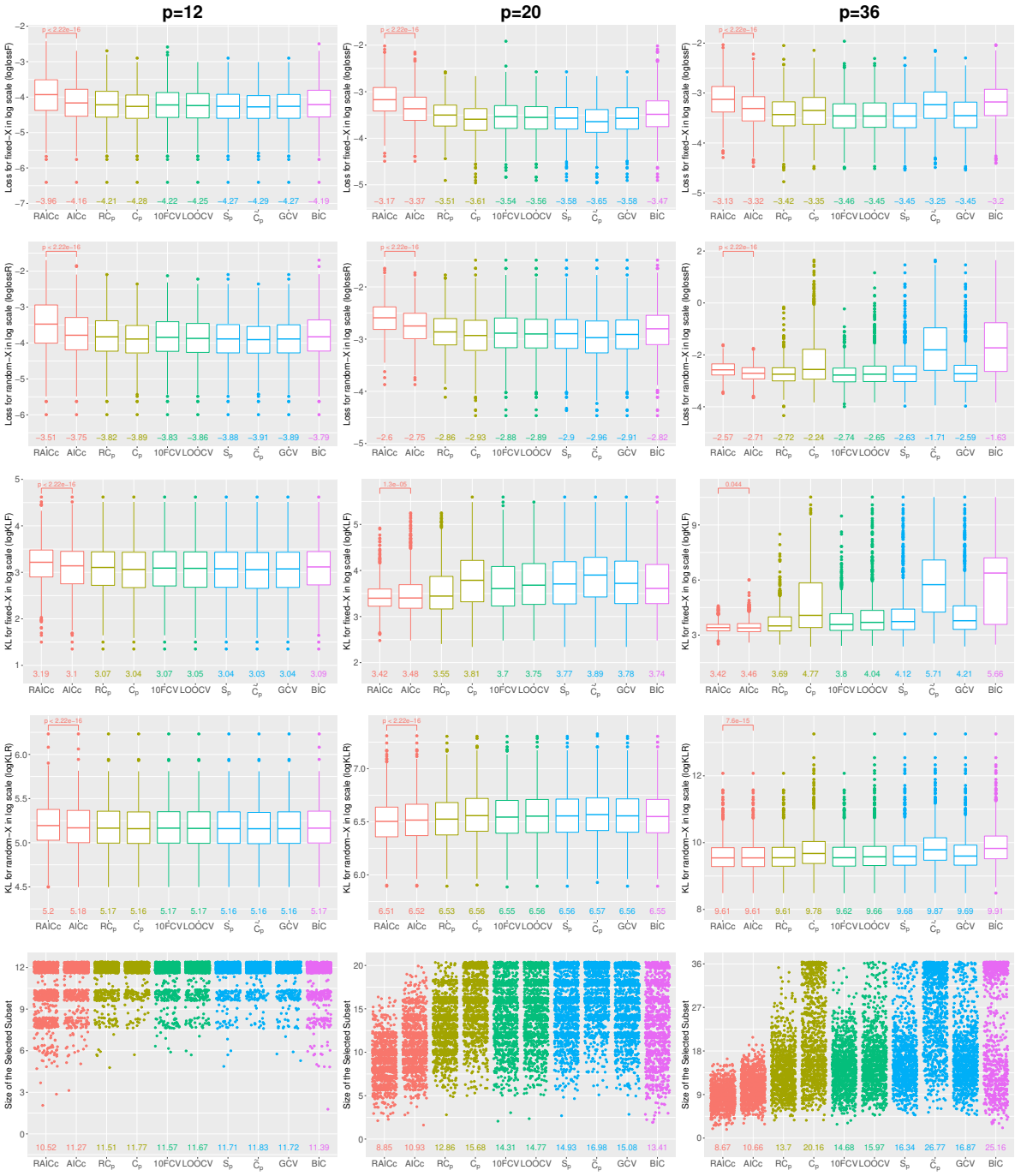

Figure S138: Variable selection, Random-X, Dense-Ex1, $n = 40$, high signal, and $\rho = 0.9$.

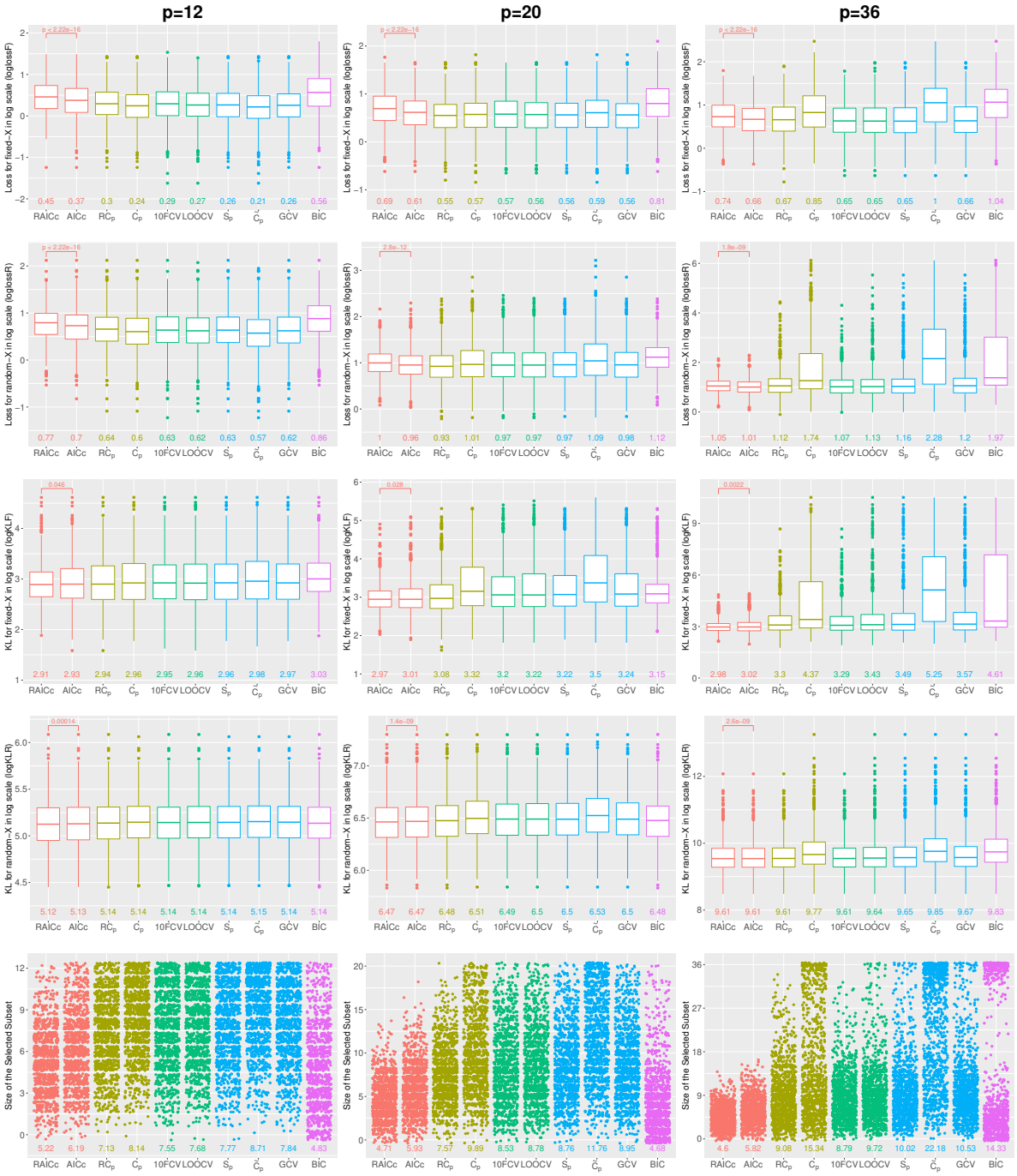

Figure S139: Variable selection, Random-X, Dense-Ex1, $n = 40$, medium signal, and $\rho = 0$.

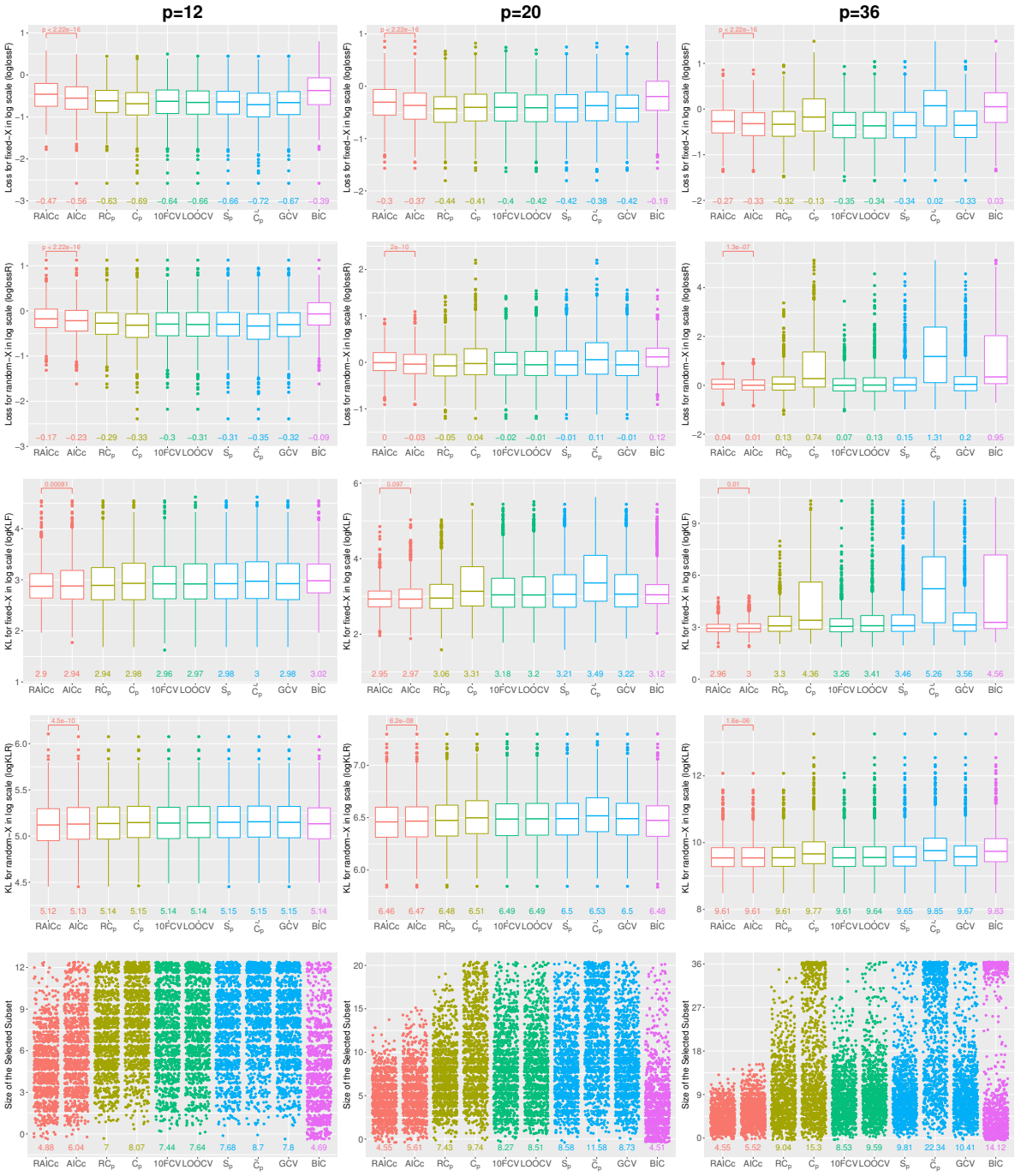

Figure S140: Variable selection, Random-X, Dense-Ex1, $n = 40$, medium signal, and $\rho = 0.5$.

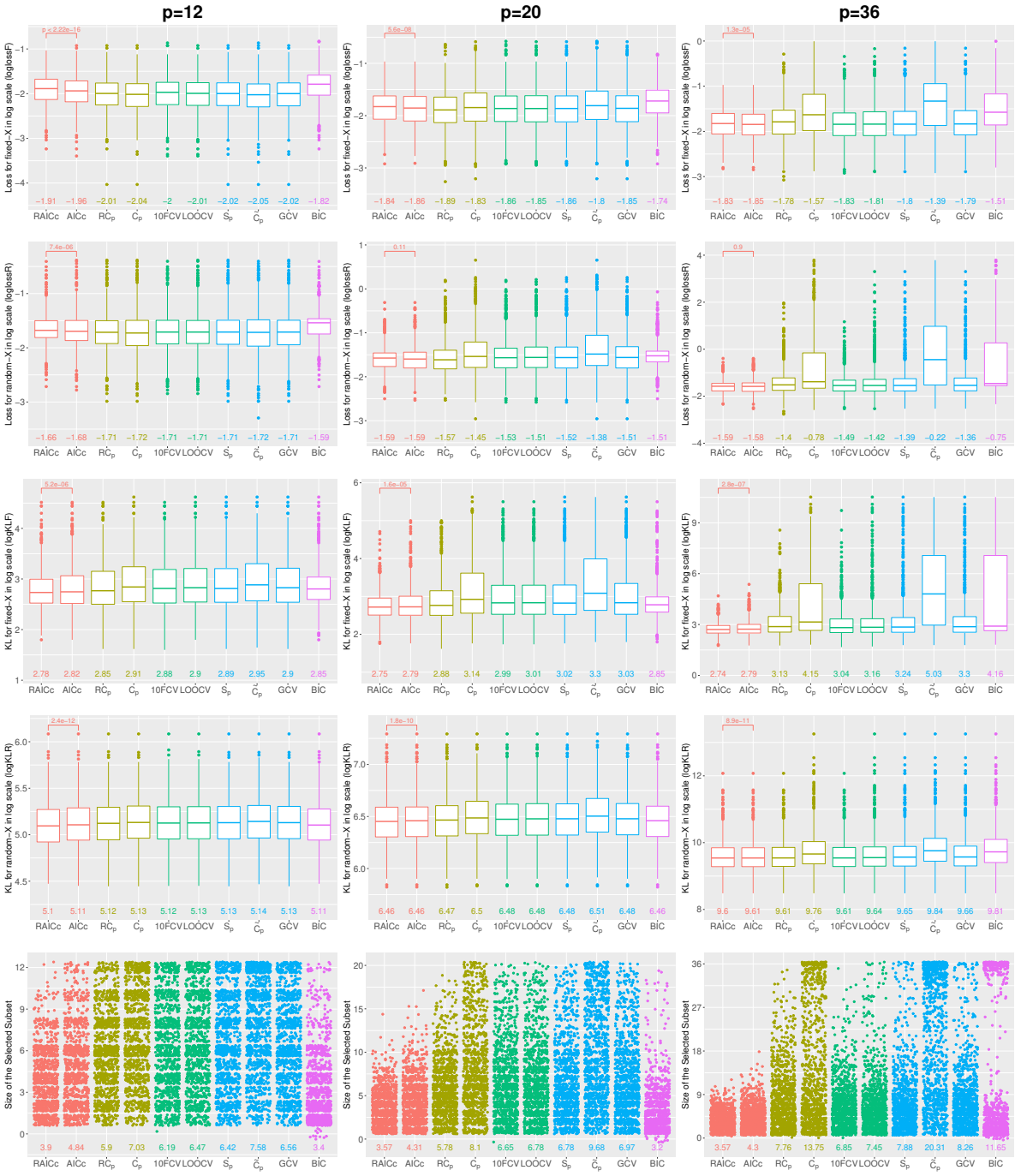

Figure S141: Variable selection, Random-X, Dense-Ex1, $n = 40$, medium signal, and $\rho = 0.9$.

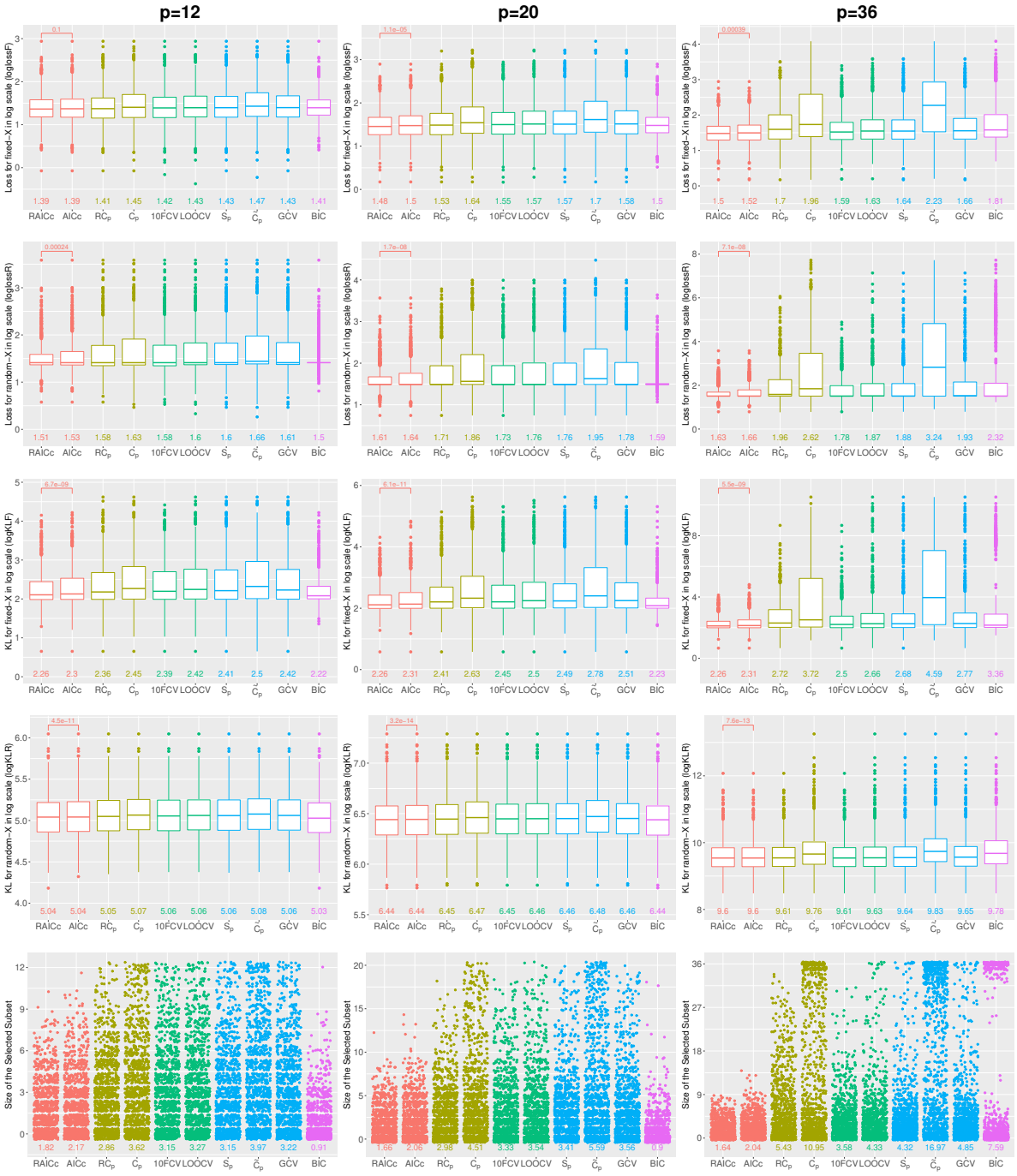

Figure S142: Variable selection, Random-X, Dense-Ex1, $n = 40$, low signal, and $\rho = 0$.

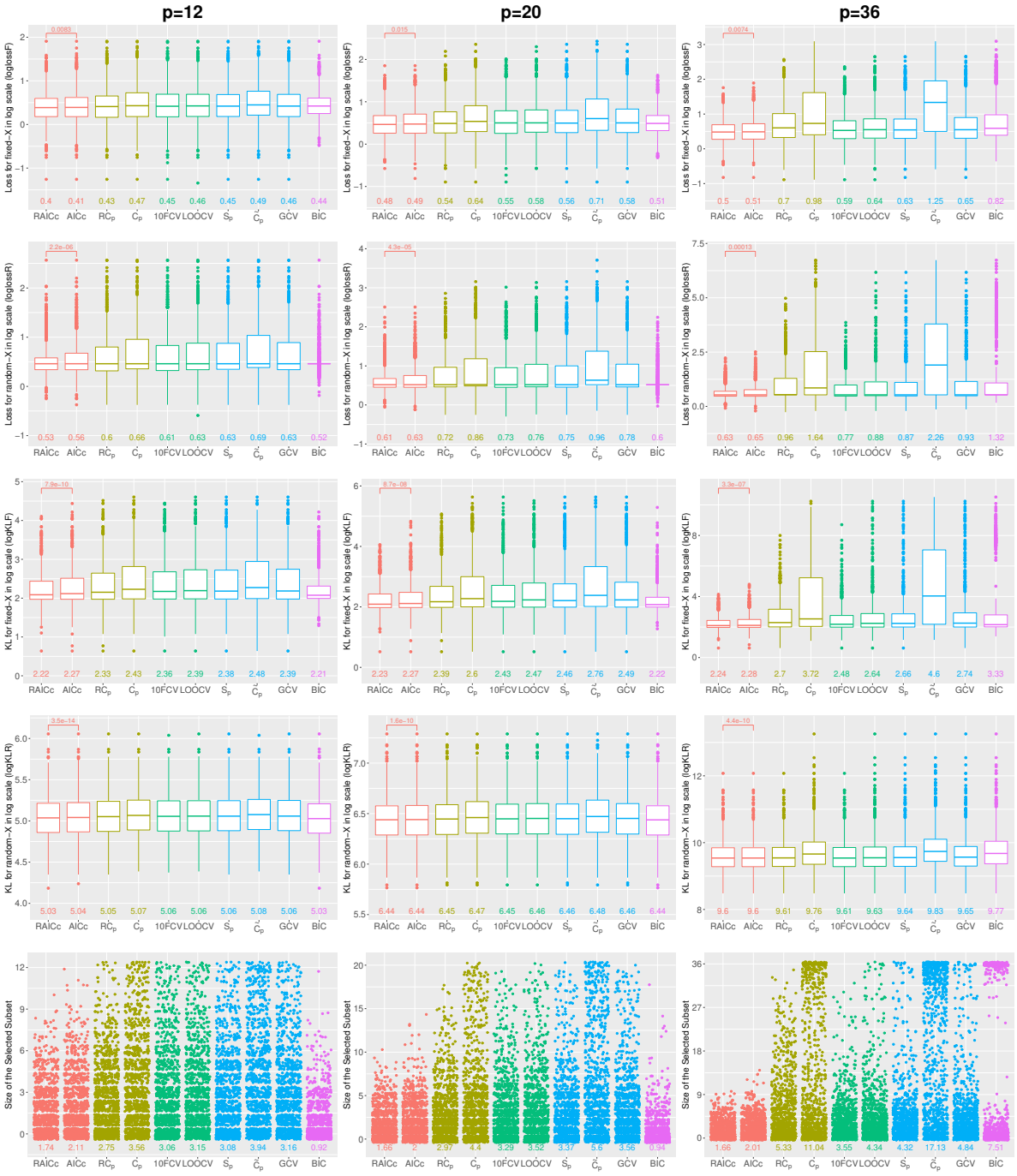

Figure S143: Variable selection, Random-X, Dense-Ex1, $n = 40$, low signal, and $\rho = 0.5$.

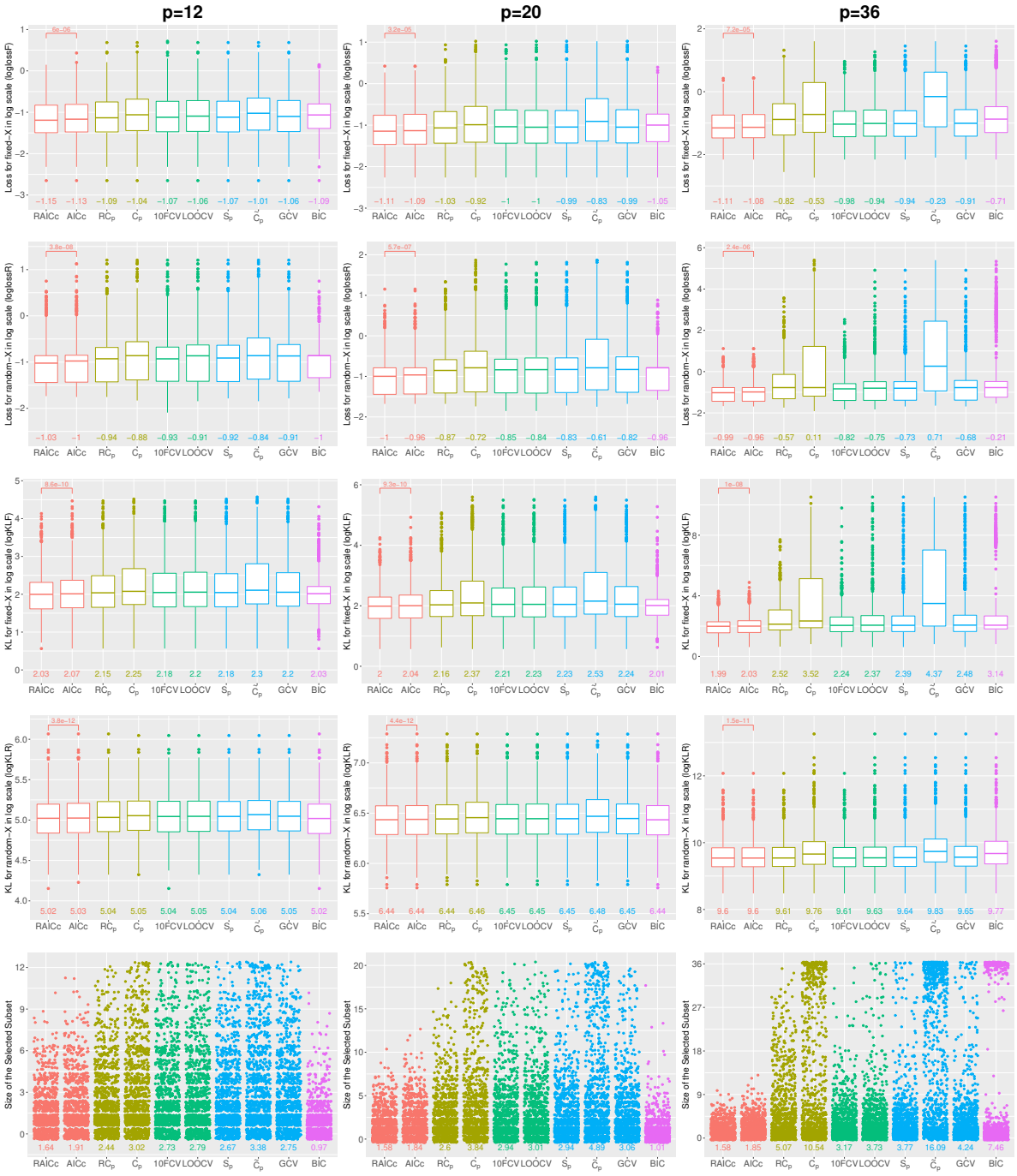

Figure S144: Variable selection, Random-X, Dense-Ex1, $n = 40$, low signal, and $\rho = 0.9$.

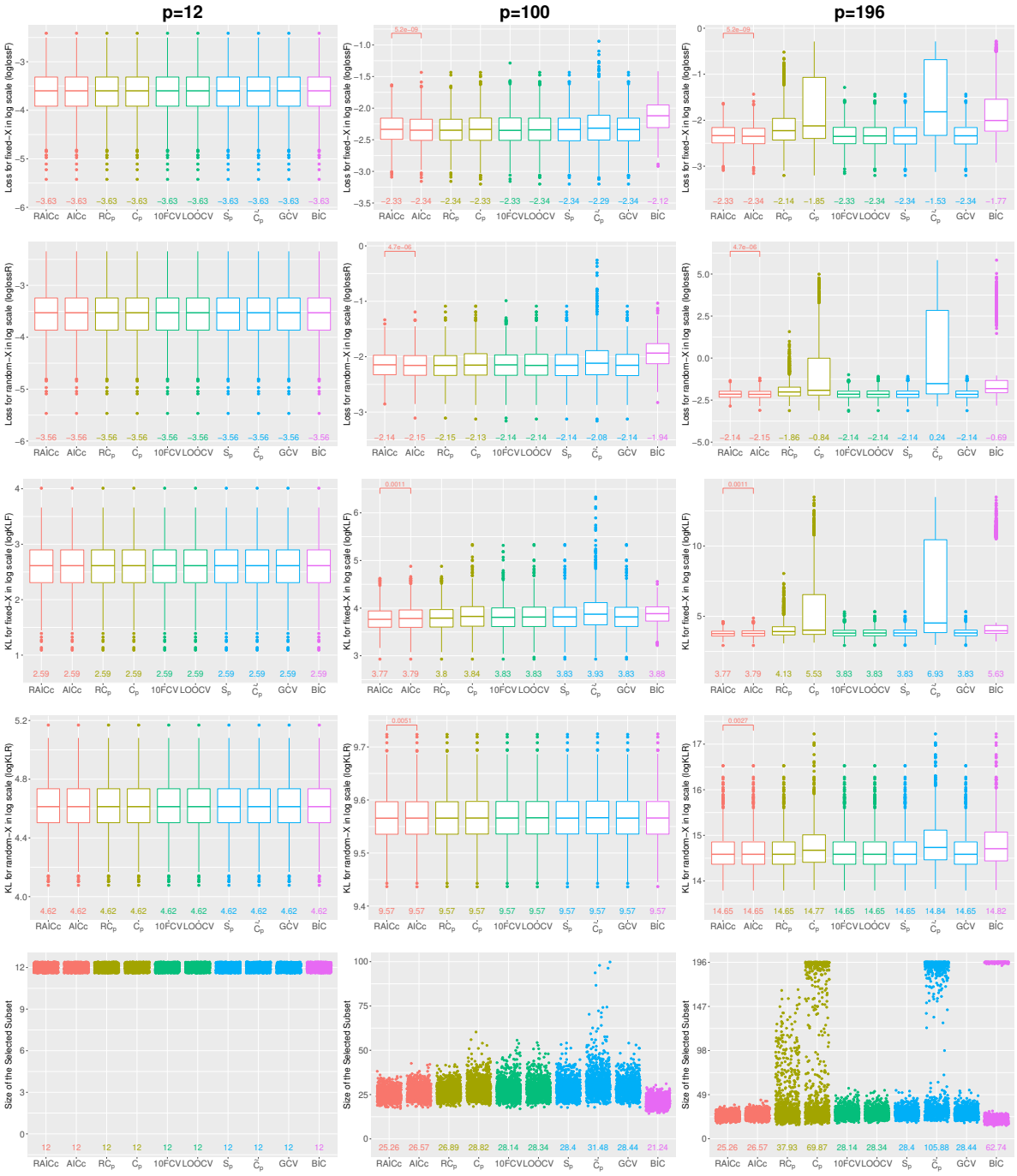

Figure S145: Variable selection, Random-X, Dense-Ex1, $n = 200$, high signal, and $\rho = 0$.

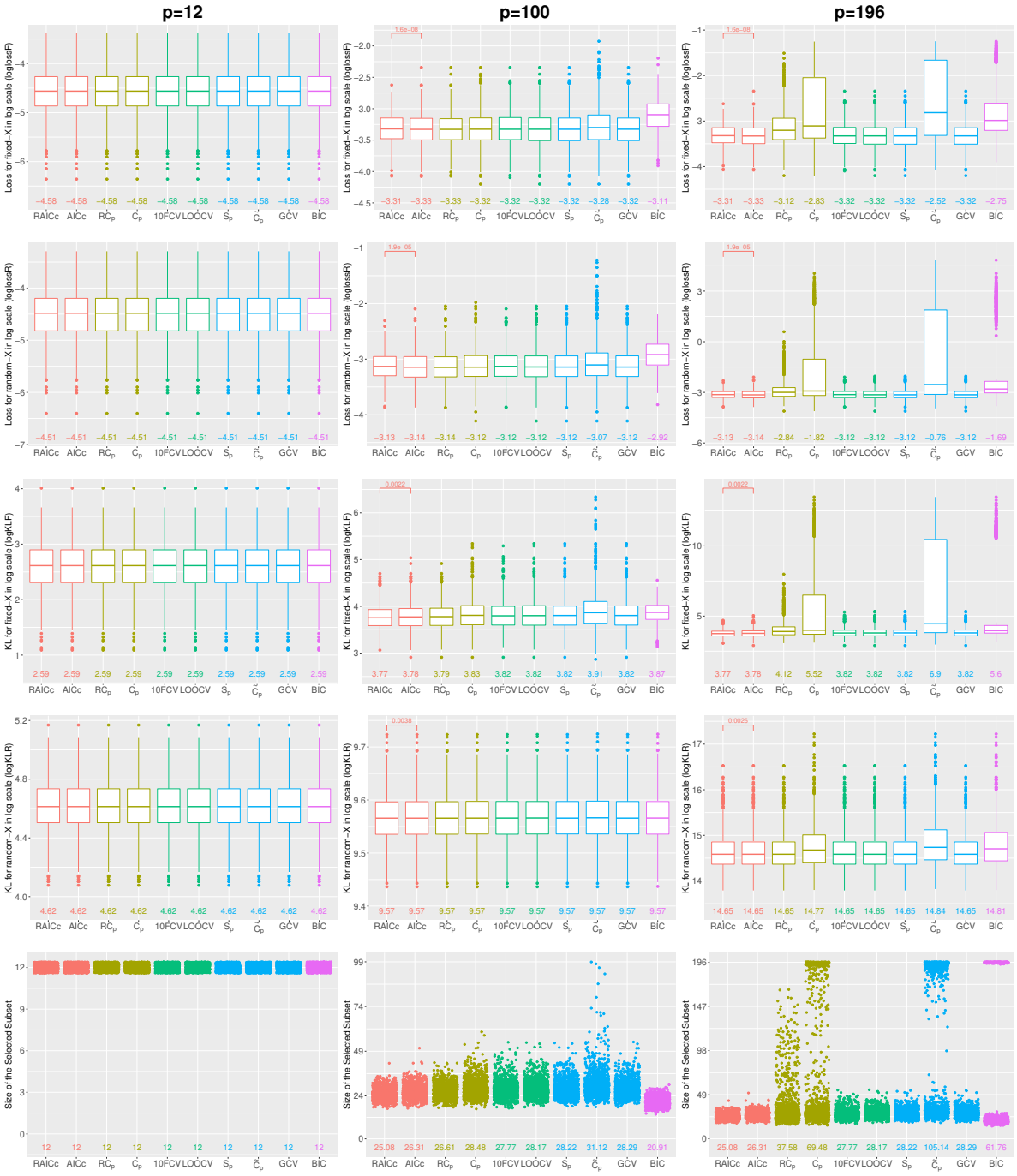

Figure S146: Variable selection, Random-X, Dense-Ex1, $n = 200$, high signal, and $\rho = 0.5$.

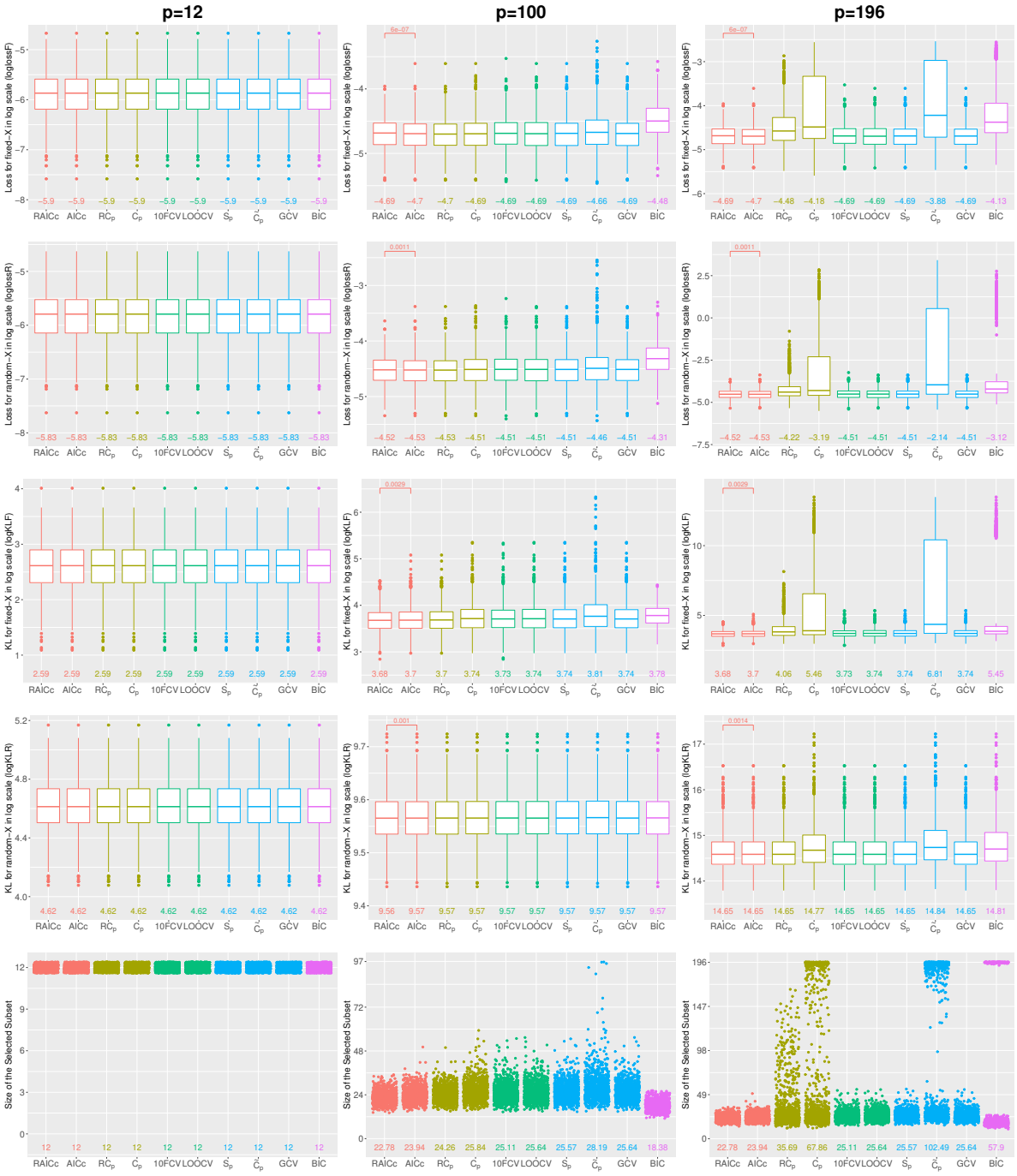

Figure S147: Variable selection, Random-X, Dense-Ex1, $n = 200$, high signal, and $\rho = 0.9$.

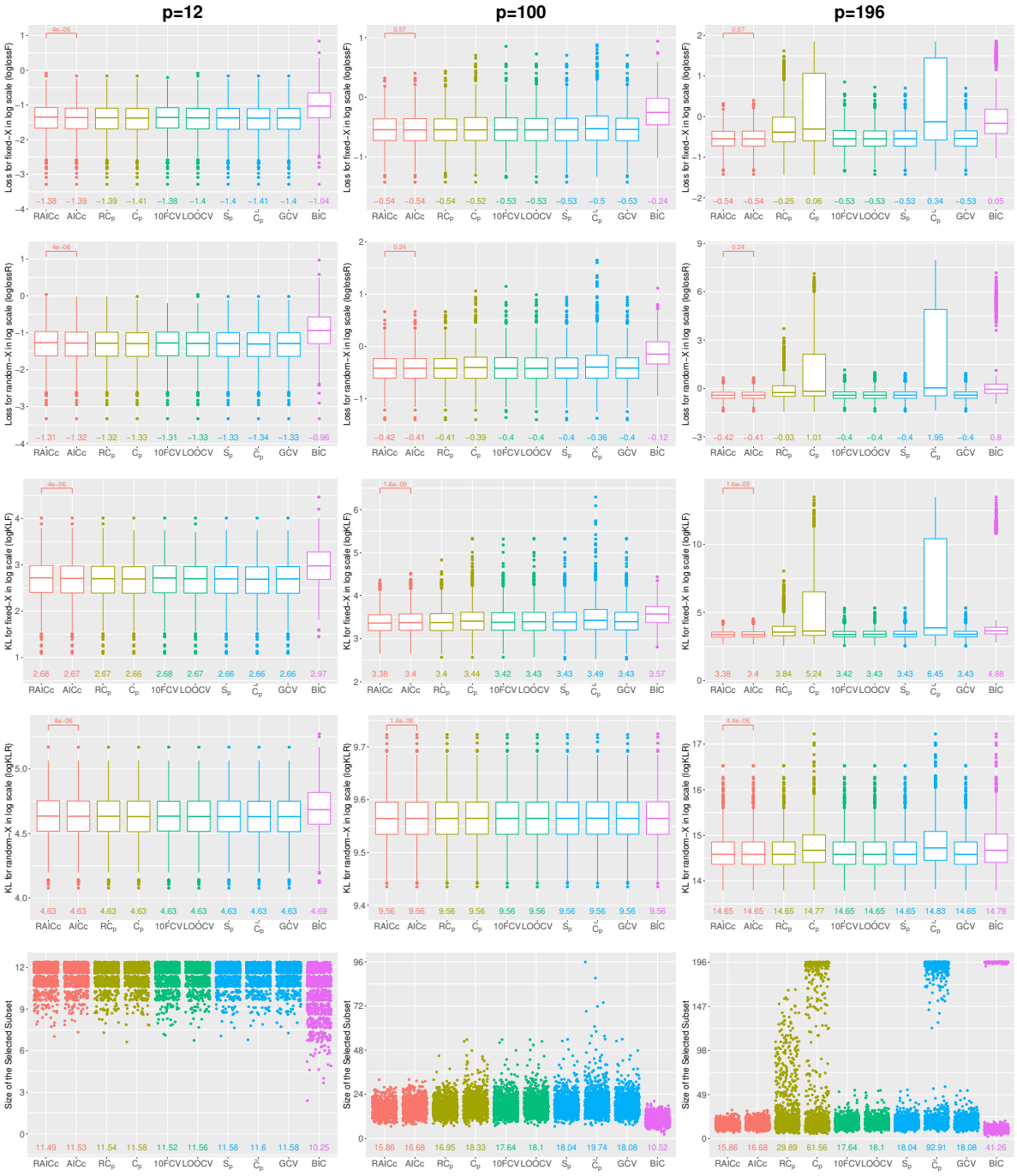

Figure S148: Variable selection, Random-X, Dense-Ex1, $n = 200$, medium signal, and $\rho = 0$.

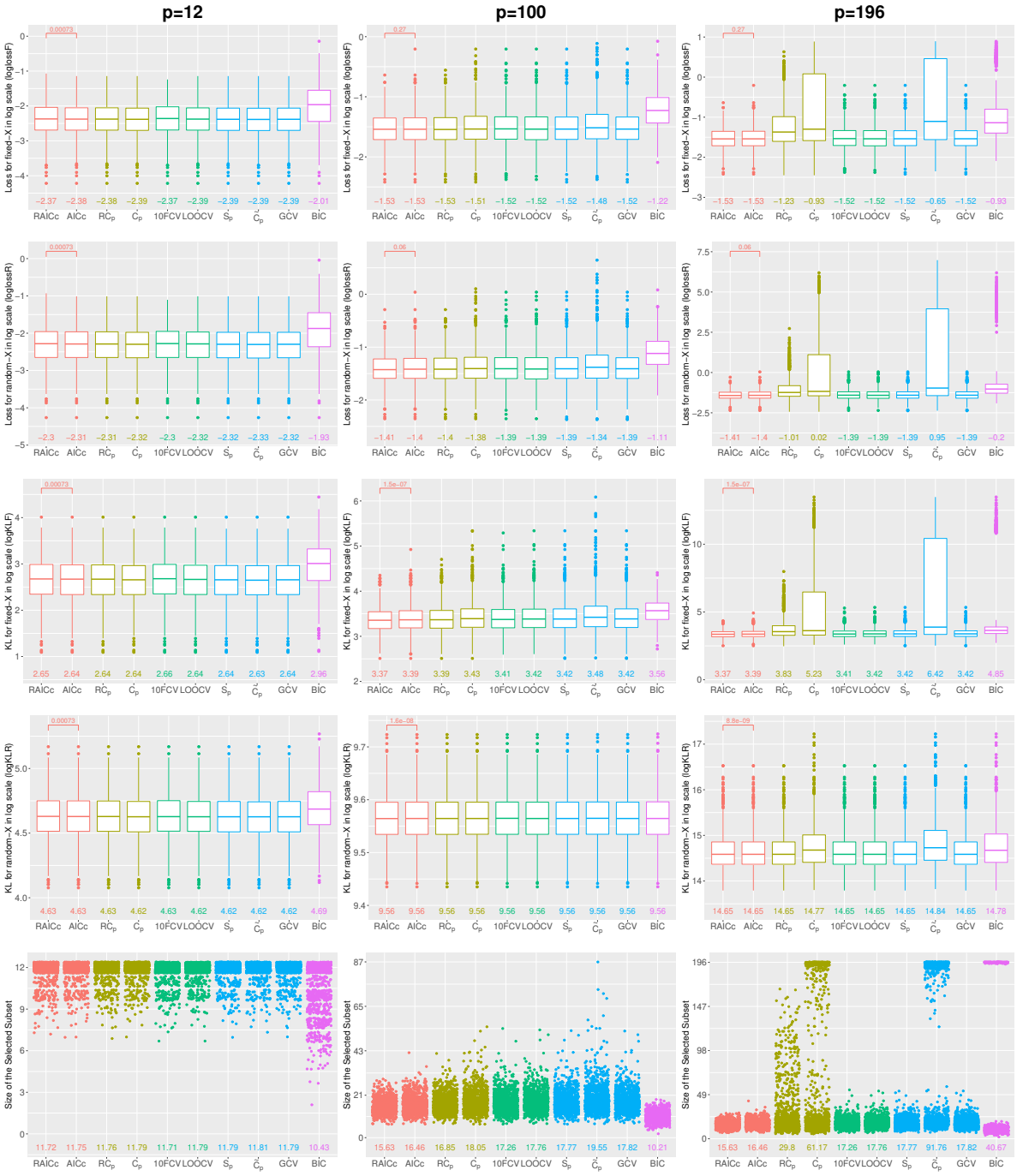

Figure S149: Variable selection, Random-X, Dense-Ex1, $n = 200$, medium signal, and $\rho = 0.5$.

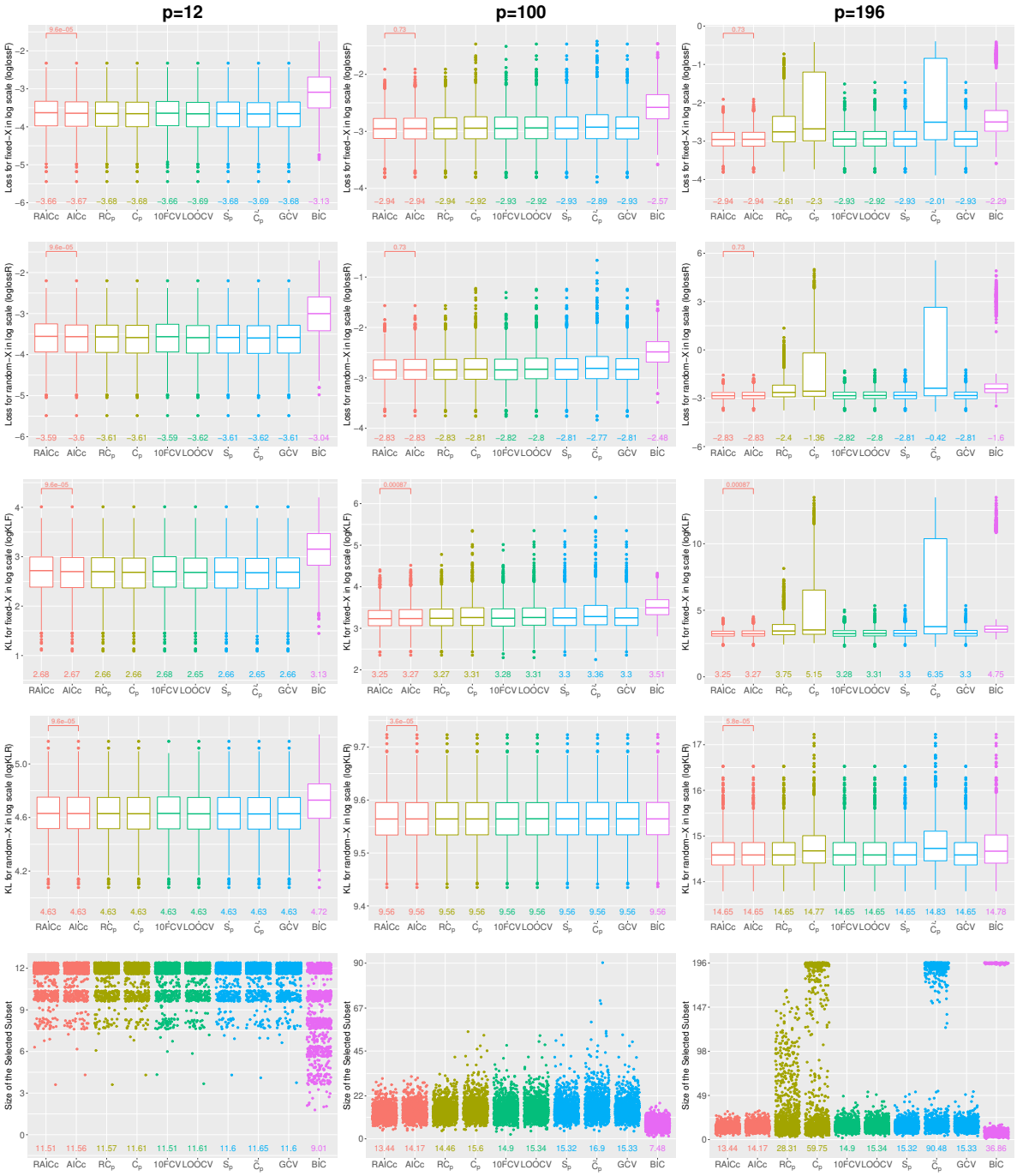

Figure S150: Variable selection, Random-X, Dense-Ex1, $n = 200$, medium signal, and $\rho = 0.9$.

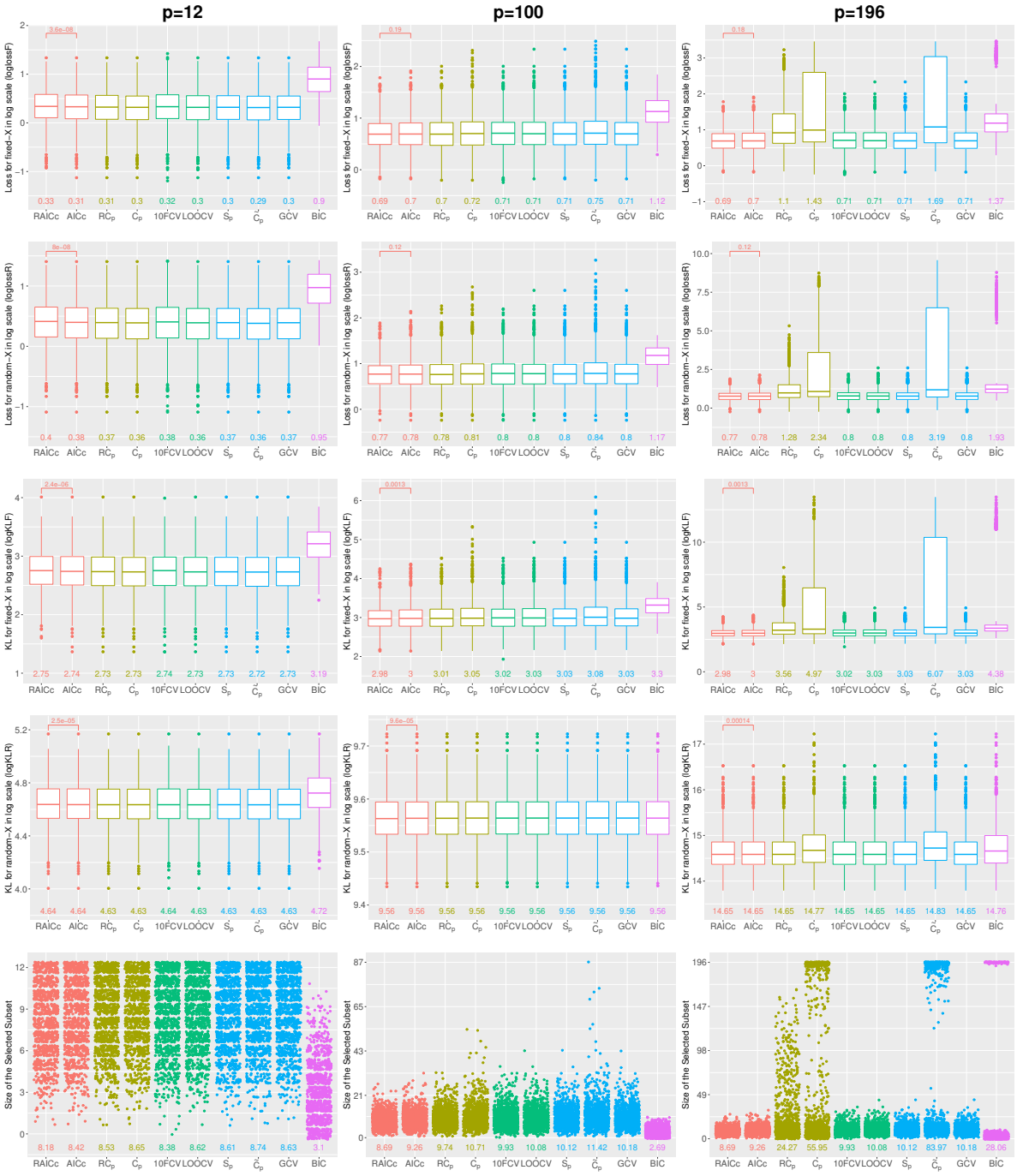

Figure S151: Variable selection, Random-X, Dense-Ex1, $n = 200$, low signal, and $\rho = 0$.

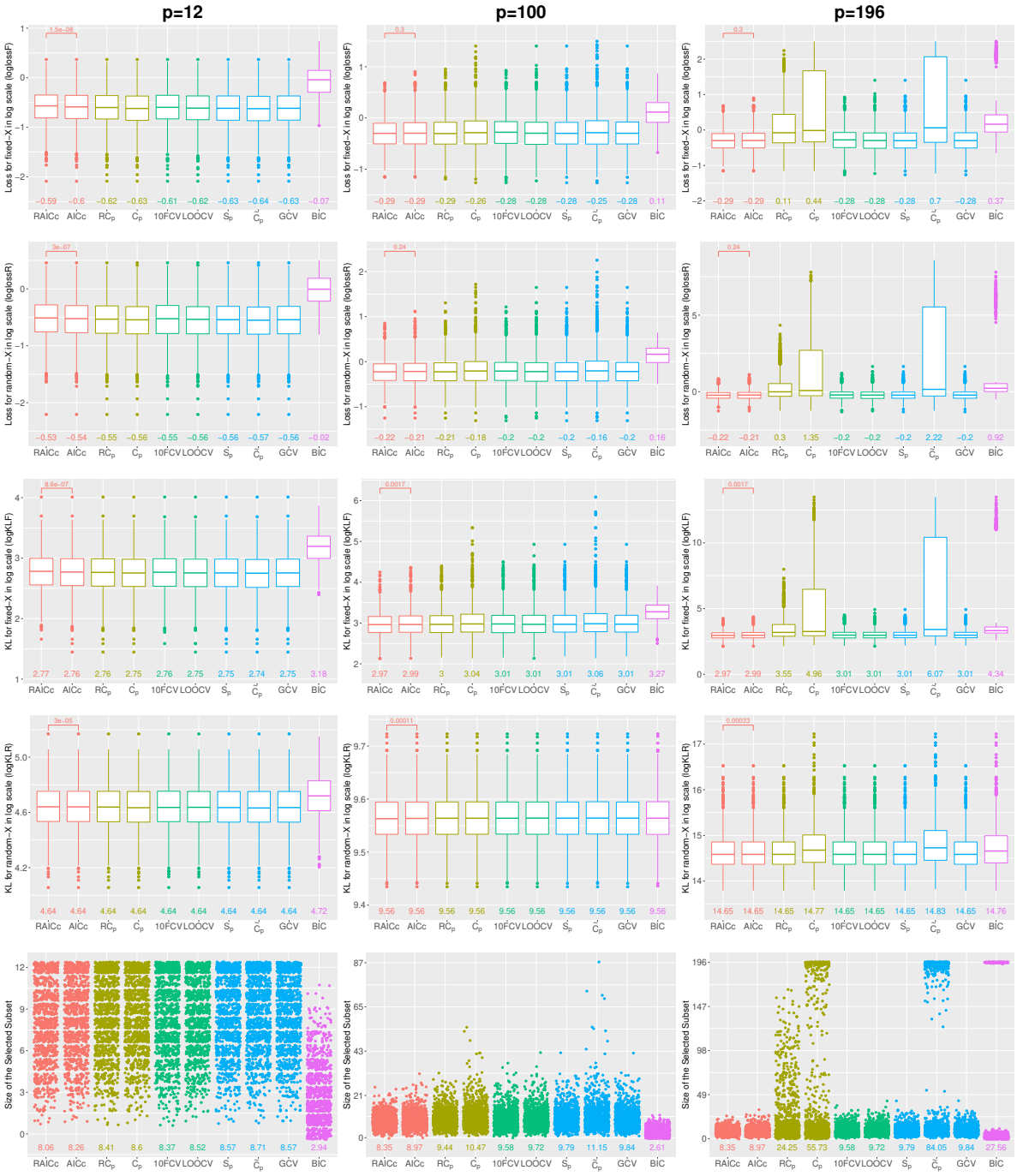

Figure S152: Variable selection, Random-X, Dense-Ex1, $n = 200$, low signal, and $\rho = 0.5$.

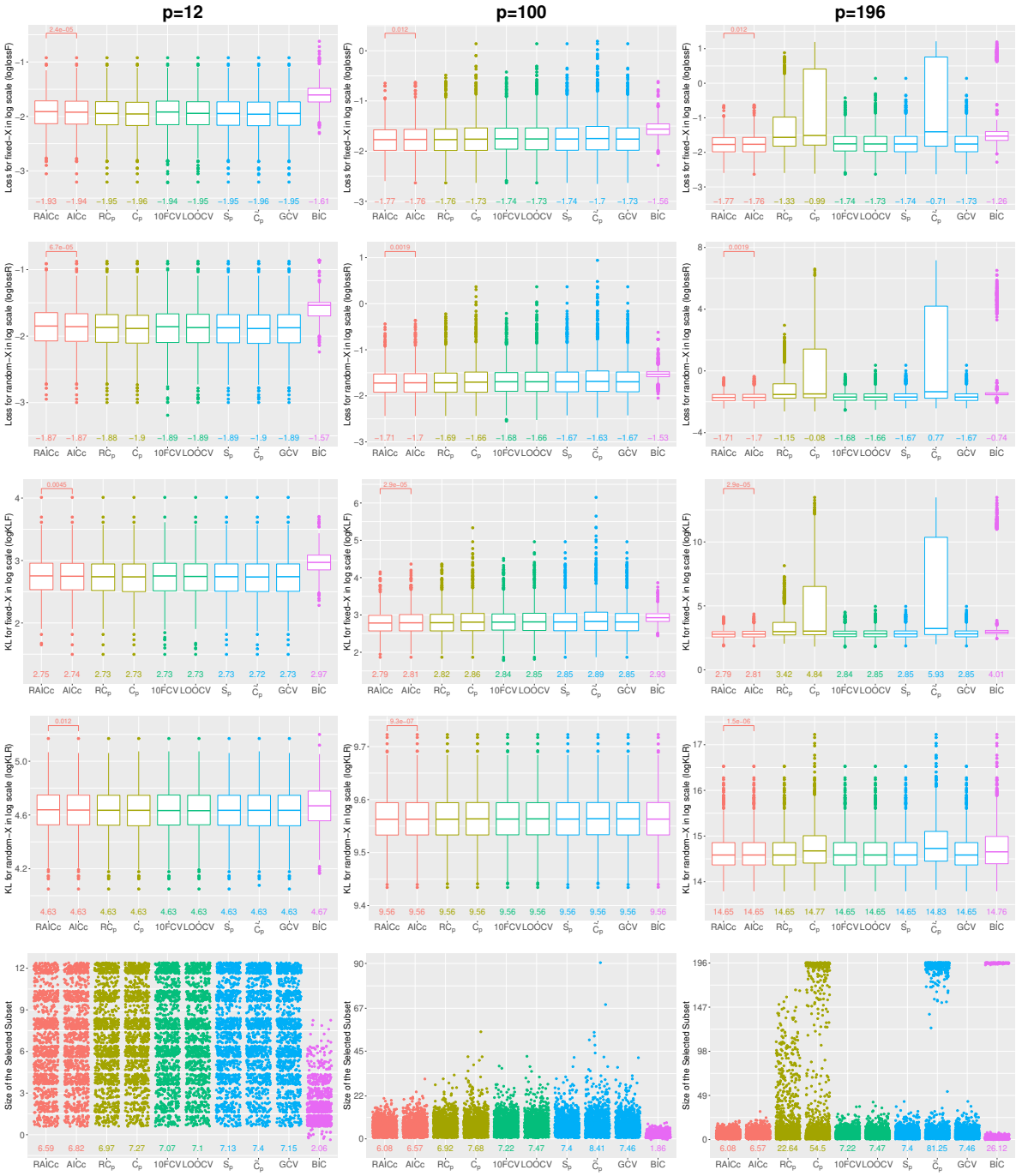

Figure S153: Variable selection, Random-X, Dense-Ex1, $n = 200$, low signal, and $\rho = 0.9$.

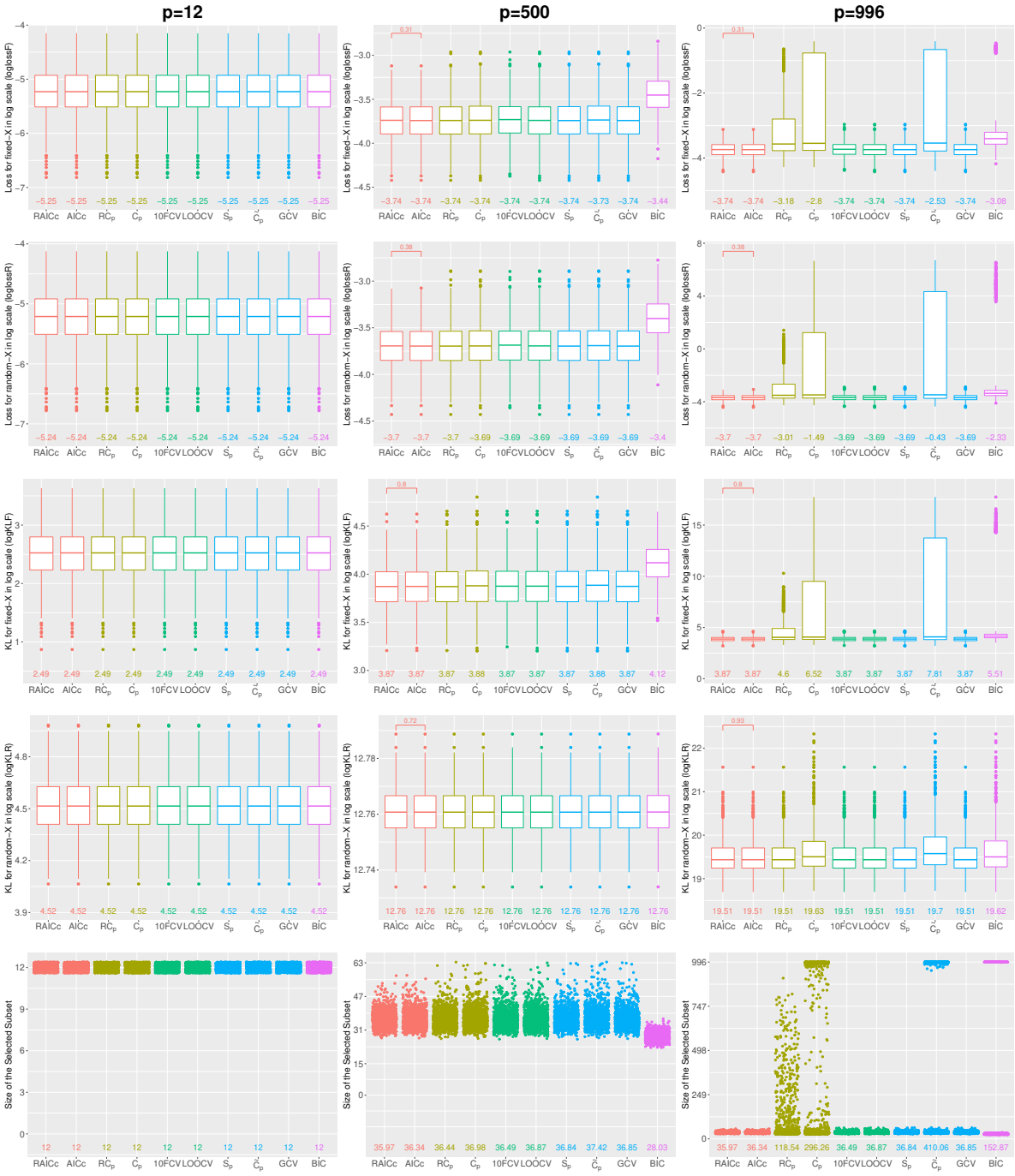

Figure S154: Variable selection, Random-X, Dense-Ex1, $n = 1000$, high signal, and $\rho = 0$.

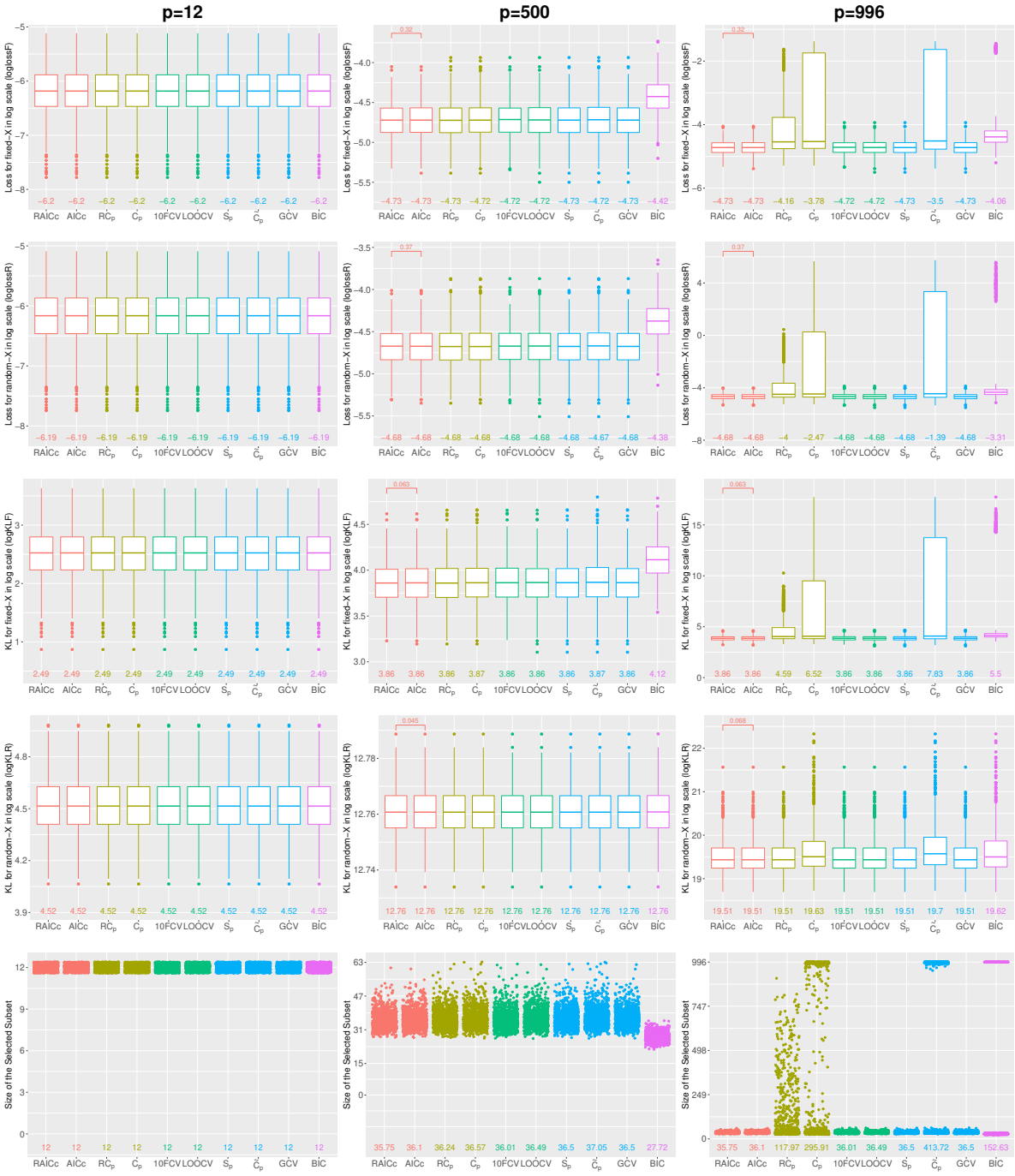

Figure S155: Variable selection, Random-X, Dense-Ex1, $n = 1000$, high signal, and $\rho = 0.5$.

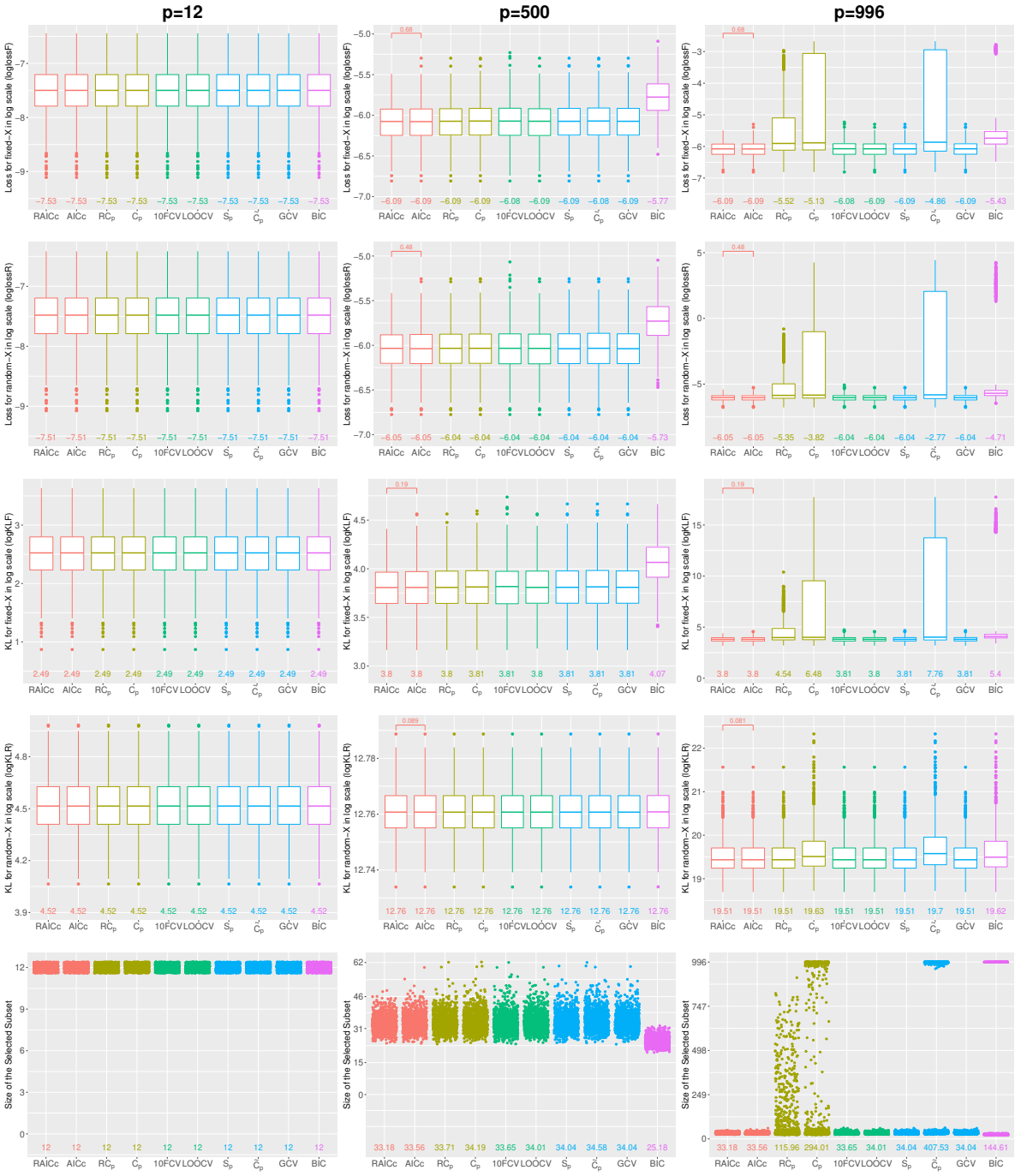

Figure S156: Variable selection, Random-X, Dense-Ex1, $n = 1000$, high signal, and $\rho = 0.9$.

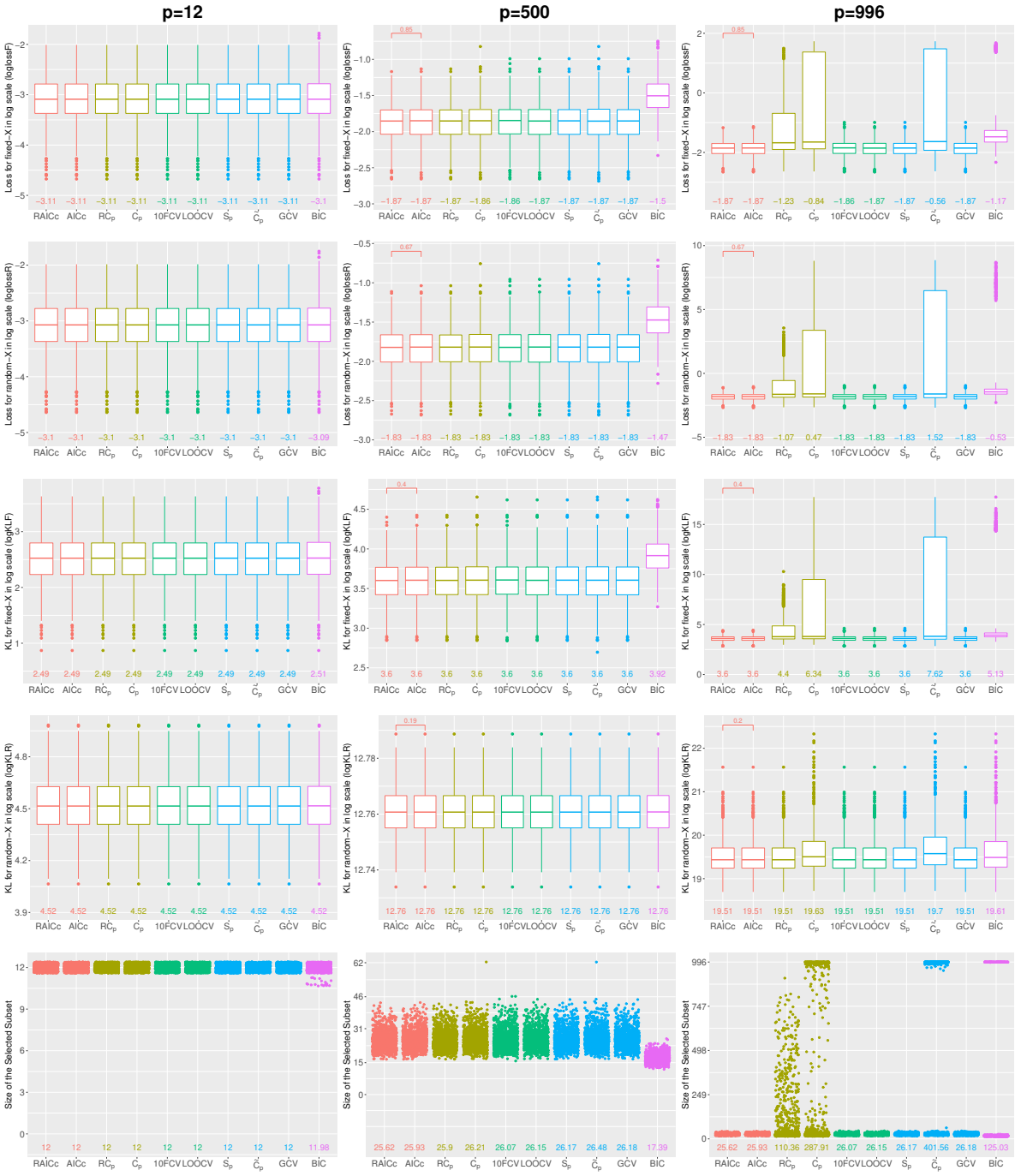

Figure S157: Variable selection, Random-X, Dense-Ex1, $n = 1000$, medium signal, and $\rho = 0$.

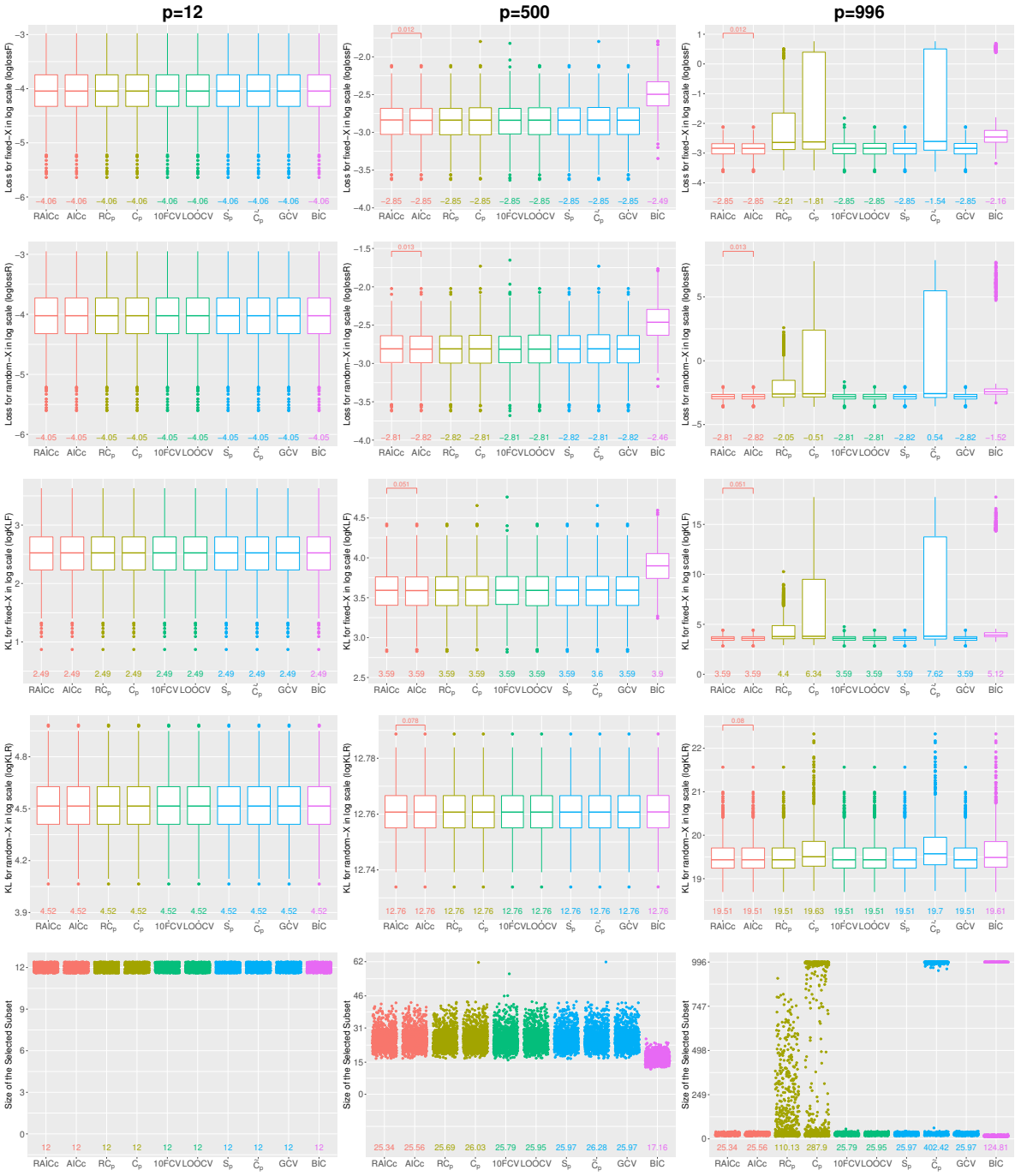

Figure S158: Variable selection, Random-X, Dense-Ex1, $n = 1000$, medium signal, and $\rho = 0.5$.

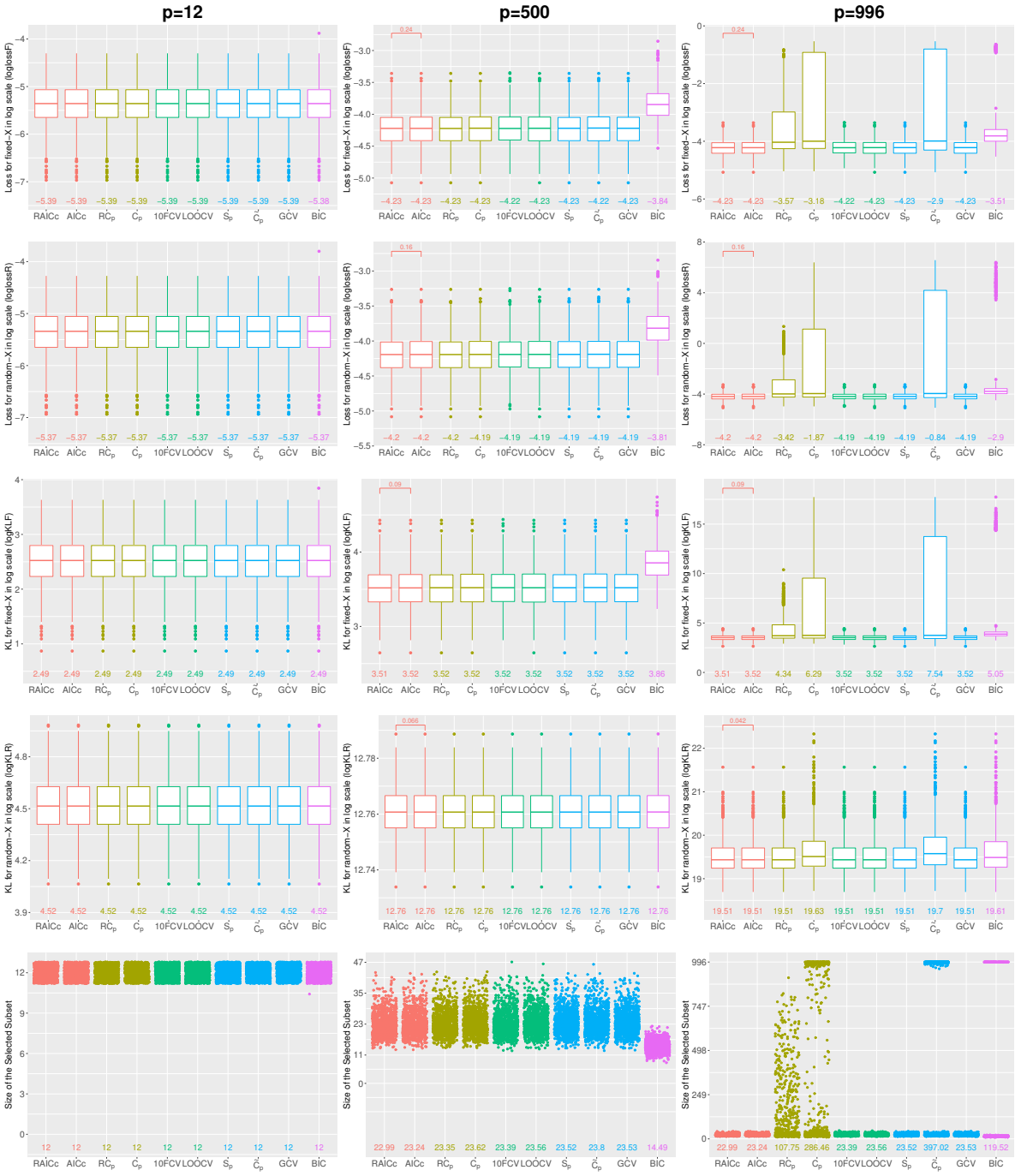

Figure S159: Variable selection, Random-X, Dense-Ex1, $n = 1000$, medium signal, and $\rho = 0.9$.

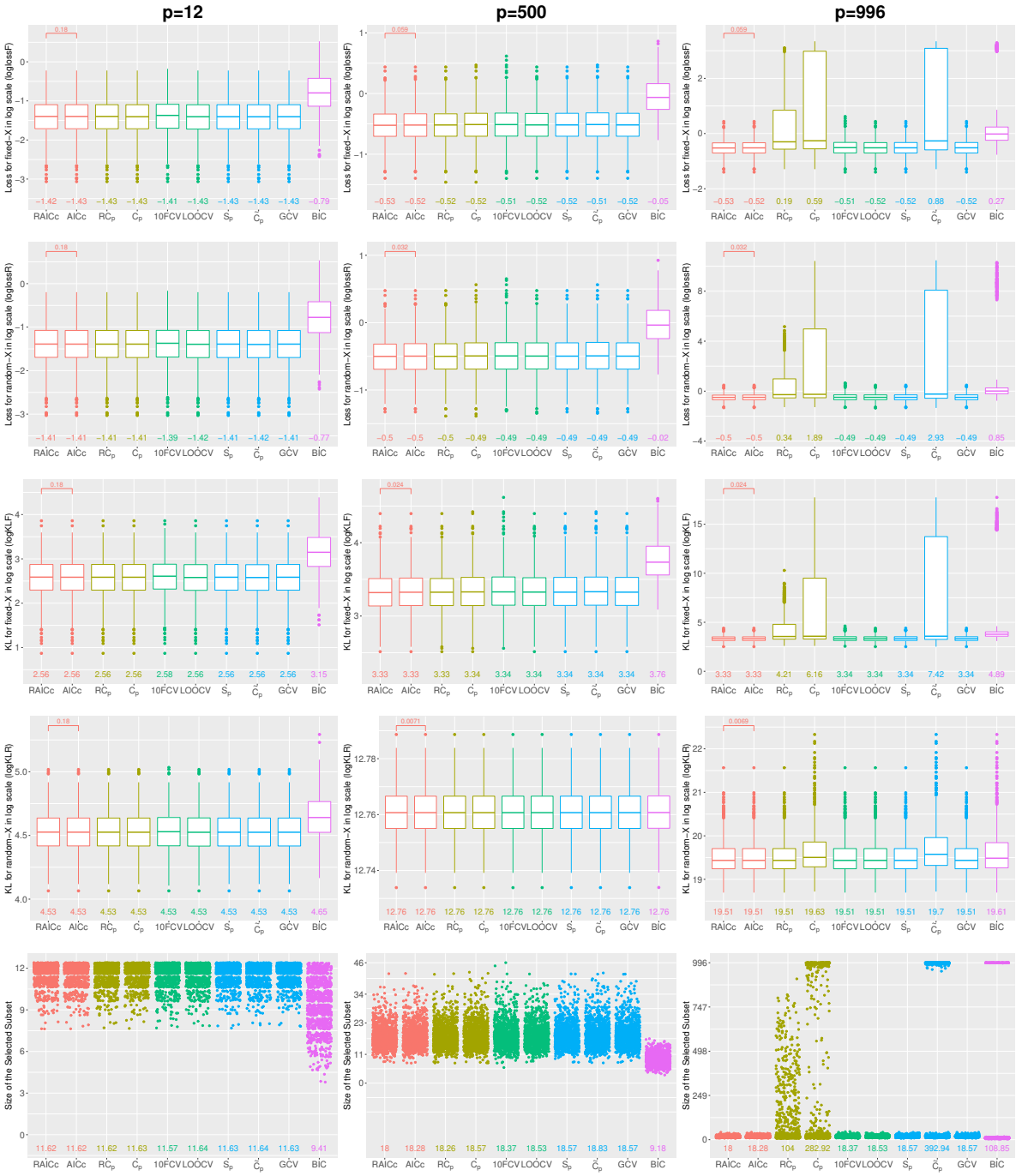

Figure S160: Variable selection, Random-X, Dense-Ex1, $n = 1000$, low signal, and $\rho = 0$.

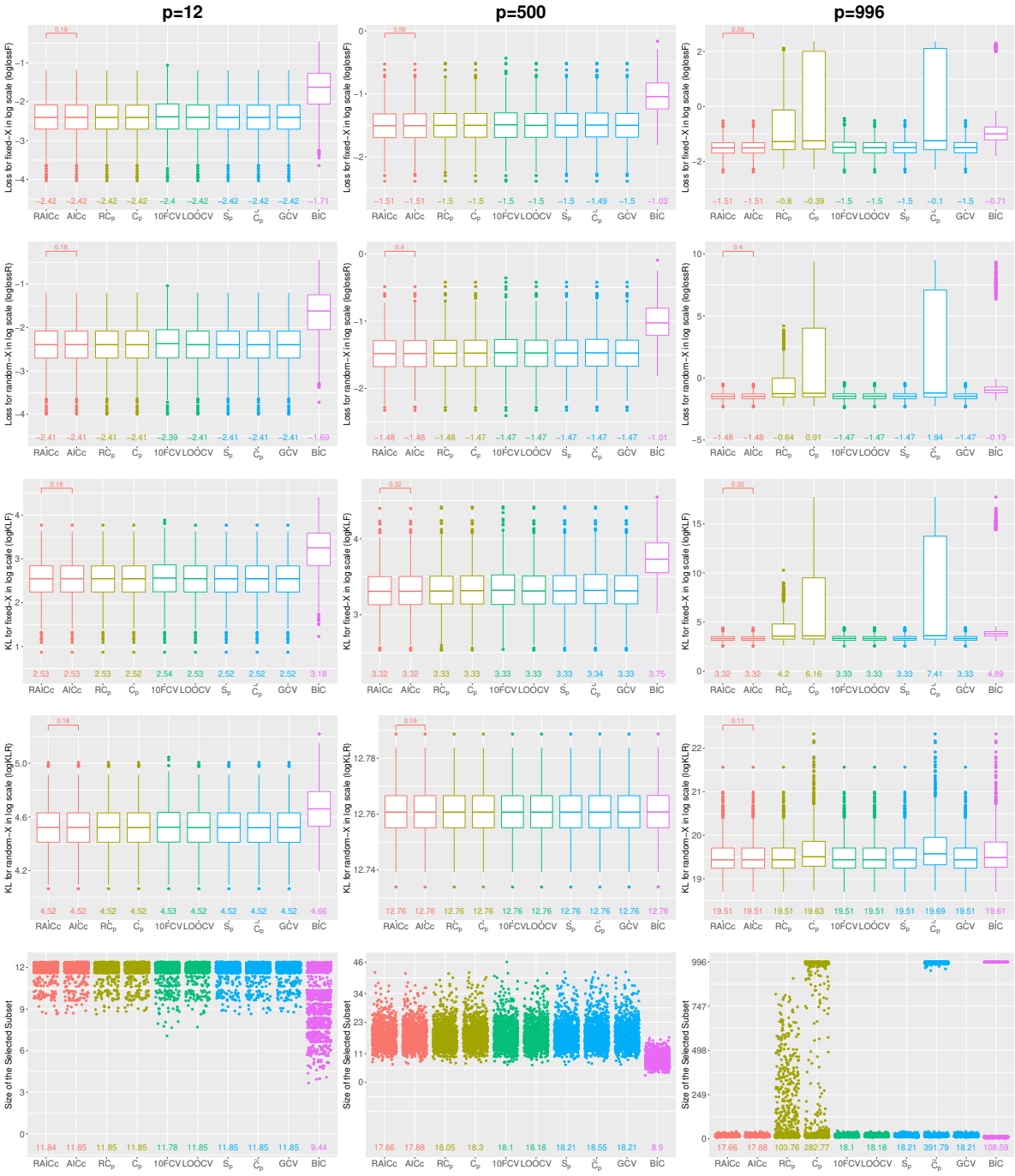

Figure S161: Variable selection, Random-X, Dense-Ex1, $n = 1000$, low signal, and $\rho = 0.5$.

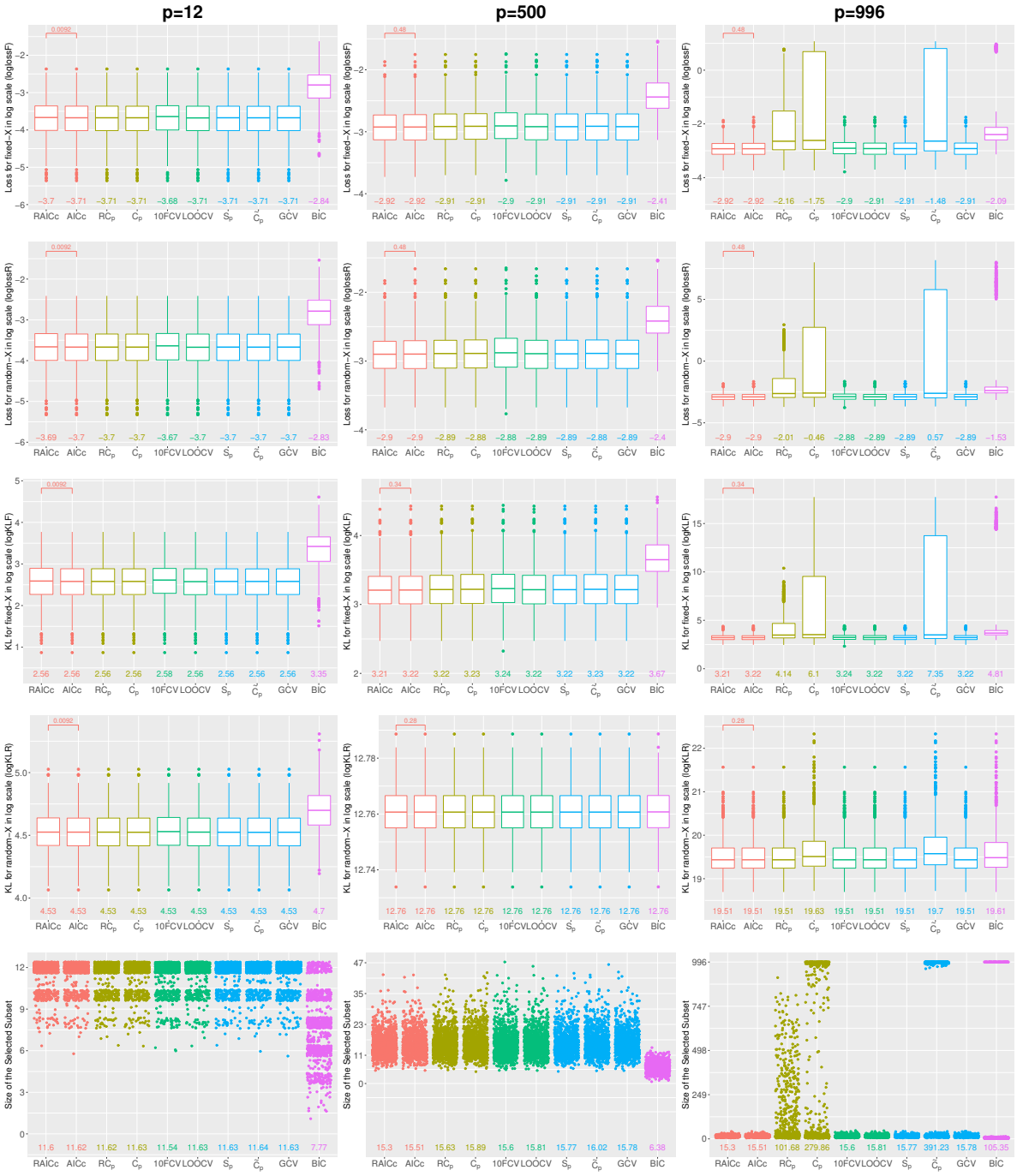

Figure S162: Variable selection, Random-X, Dense-Ex1, $n = 1000$, low signal, and $\rho = 0.9$.

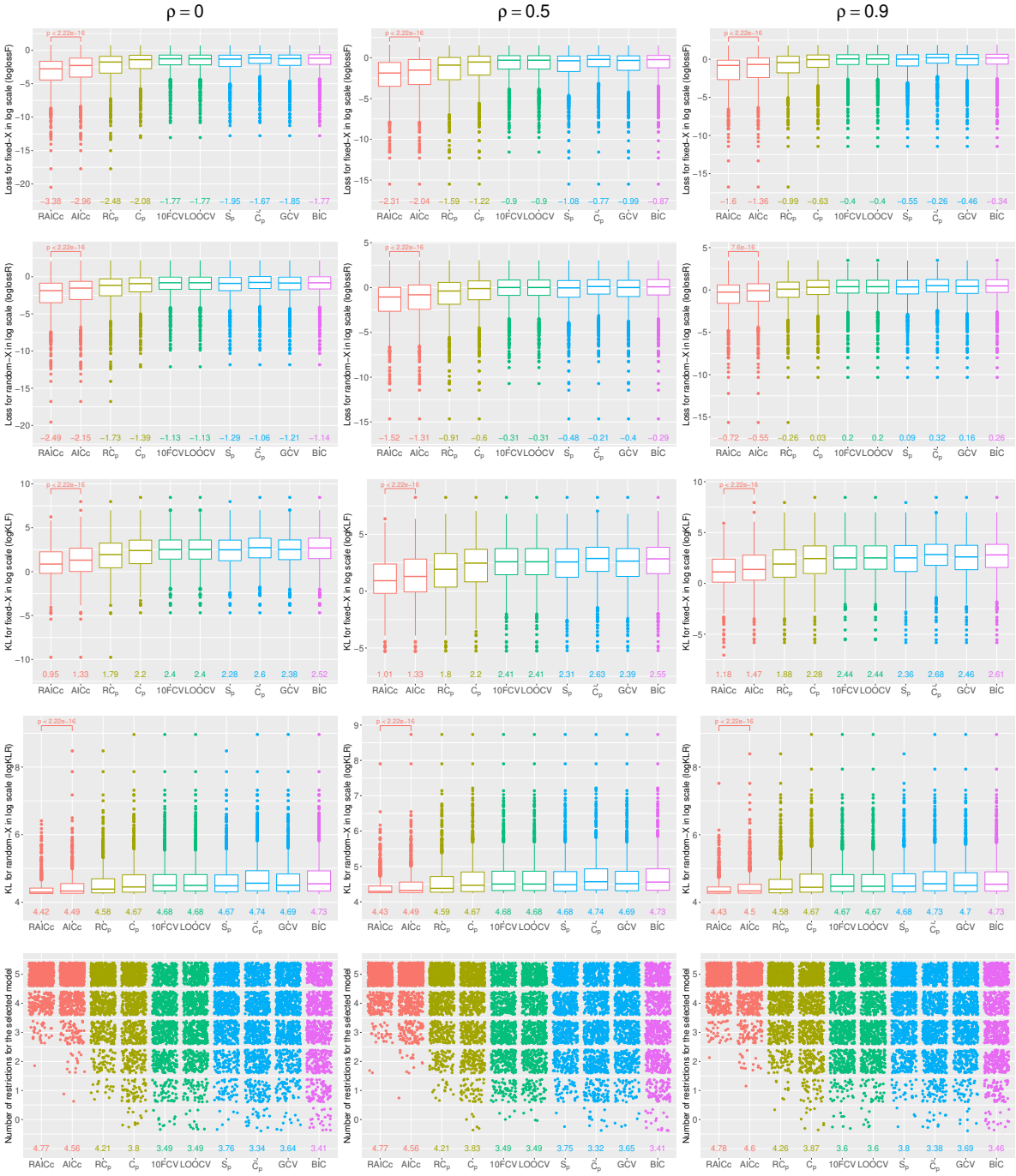

Figure S163: General restriction, Fixed-X, Ex1, $n = 10$, and high signal.

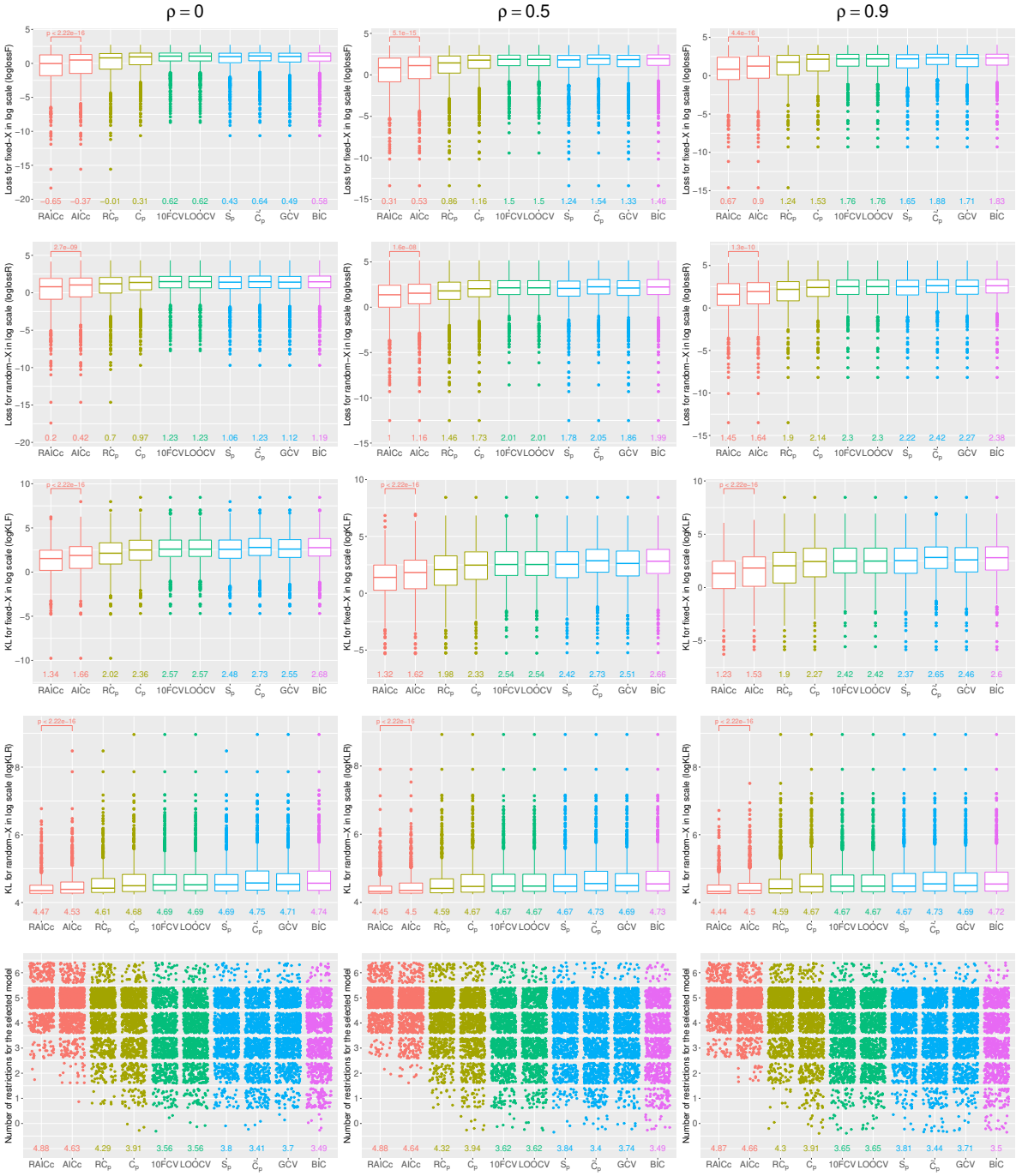

Figure S164: General restriction, Fixed-X, Ex1, $n = 10$, and medium signal.

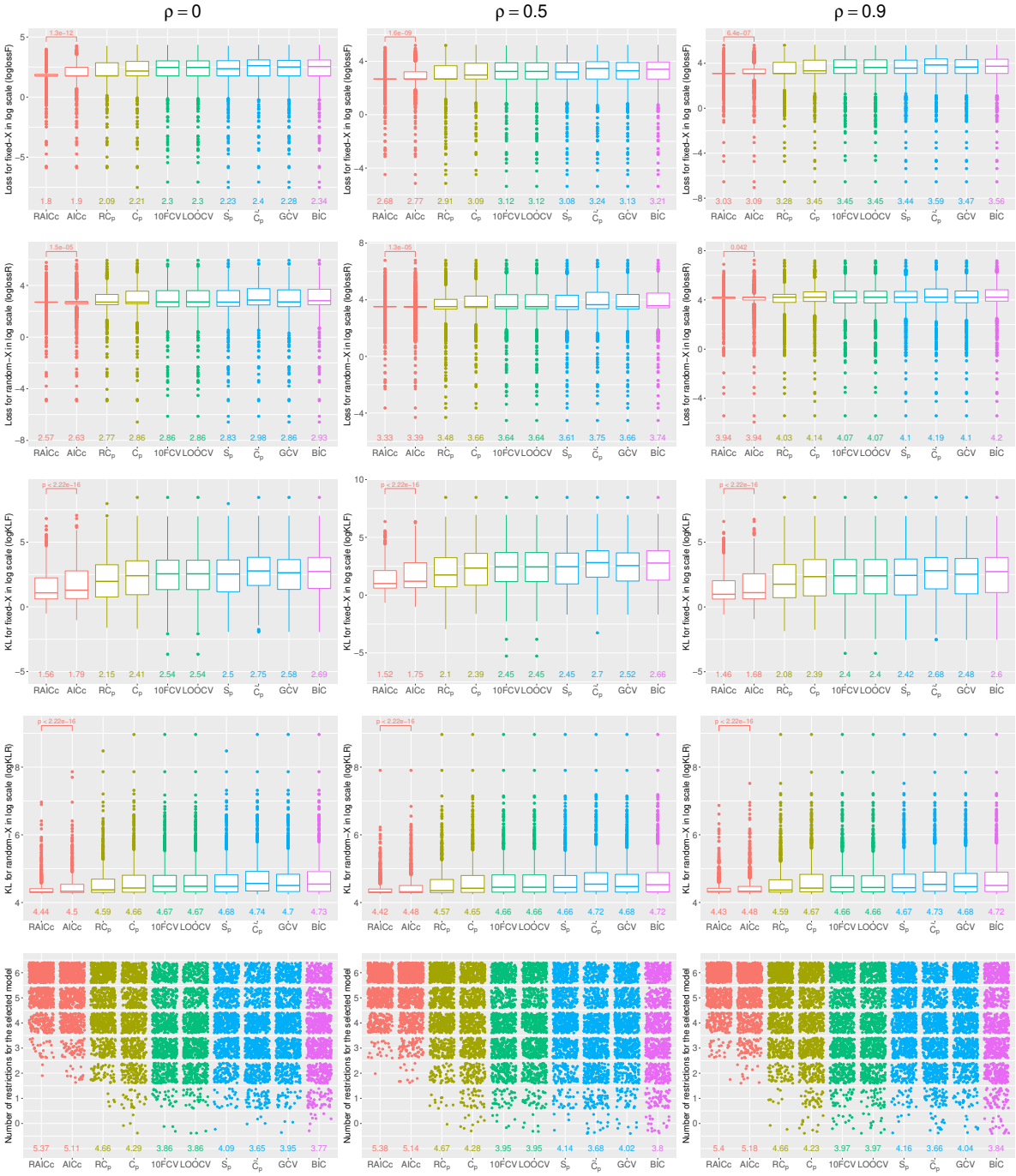

Figure S165: General restriction, Fixed-X, Ex1, $n = 10$, and low signal.

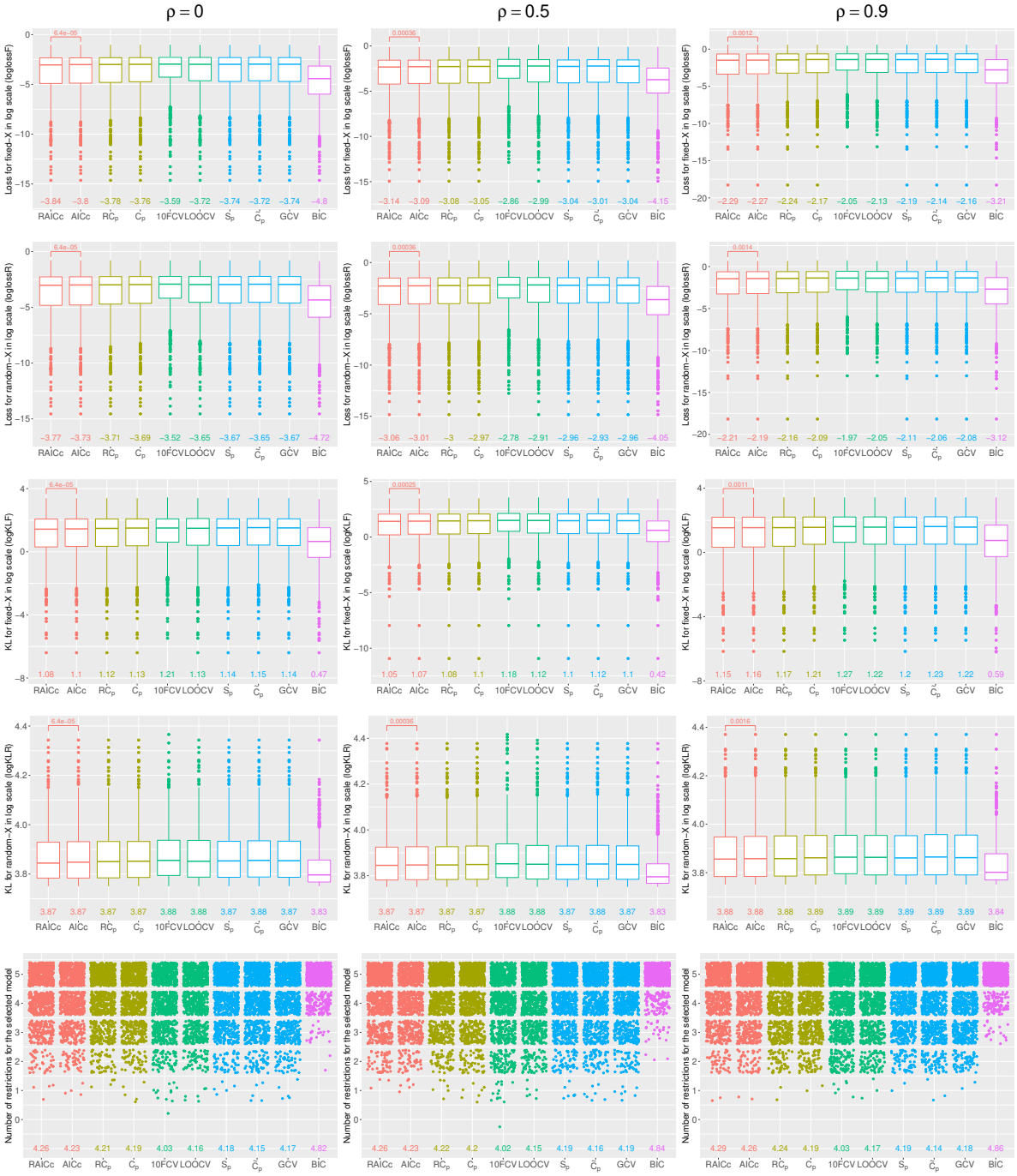

Figure S166: General restriction, Fixed-X, Ex1, $n = 100$, and high signal.

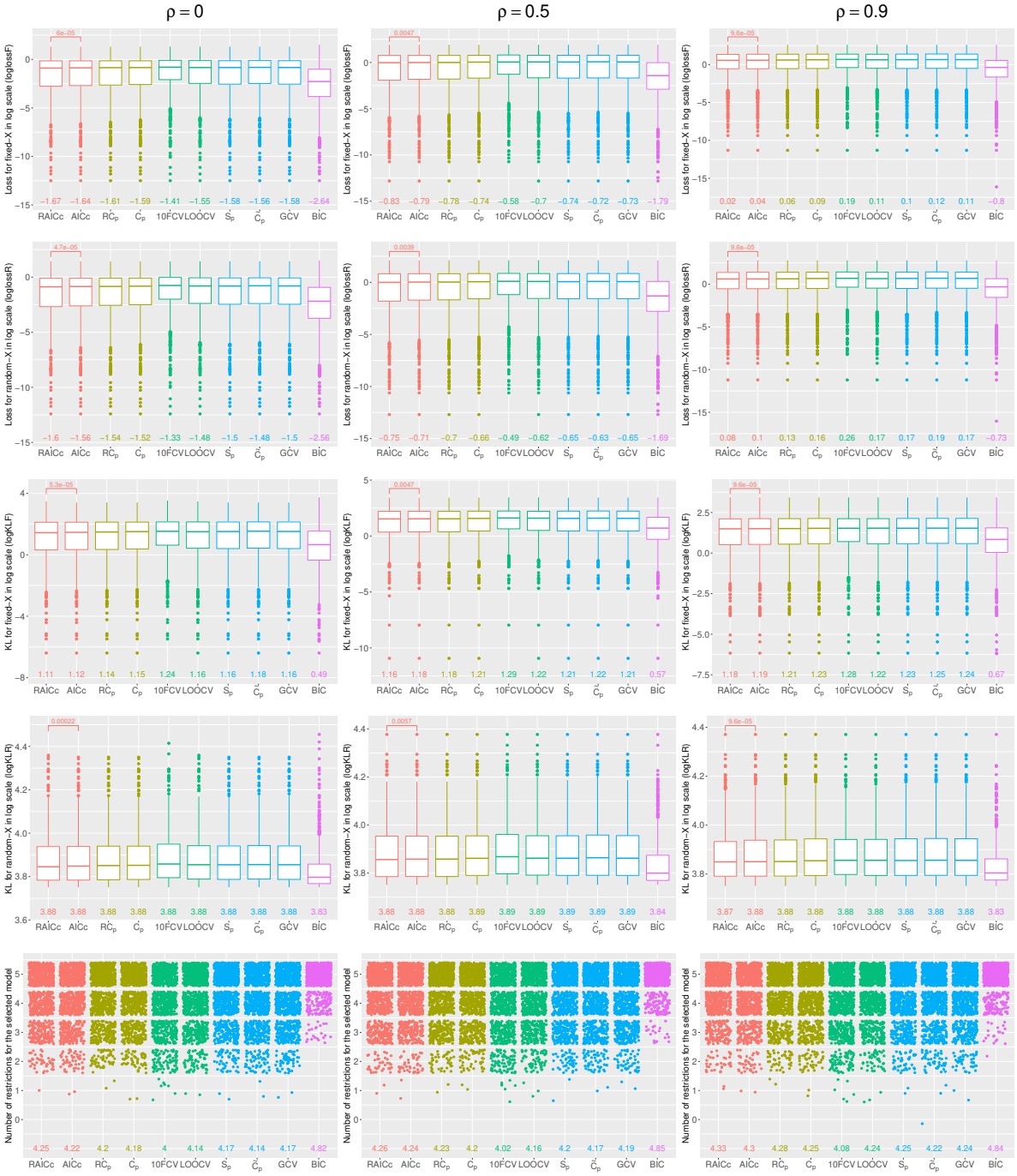

Figure S167: General restriction, Fixed-X, Ex1, $n = 100$, and medium signal.

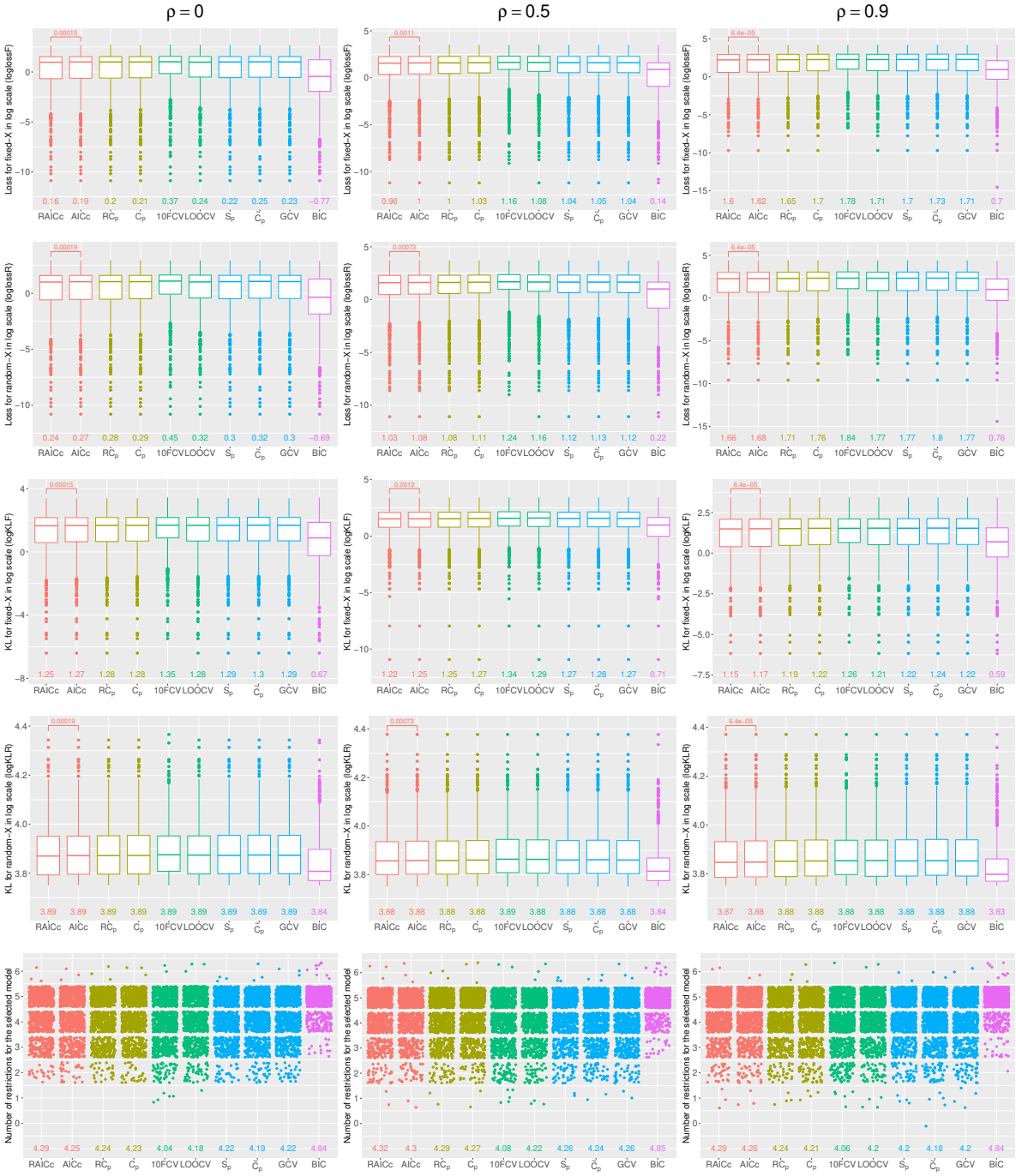

Figure S168: General restriction, Fixed-X, Ex1, $n = 100$, and low signal.

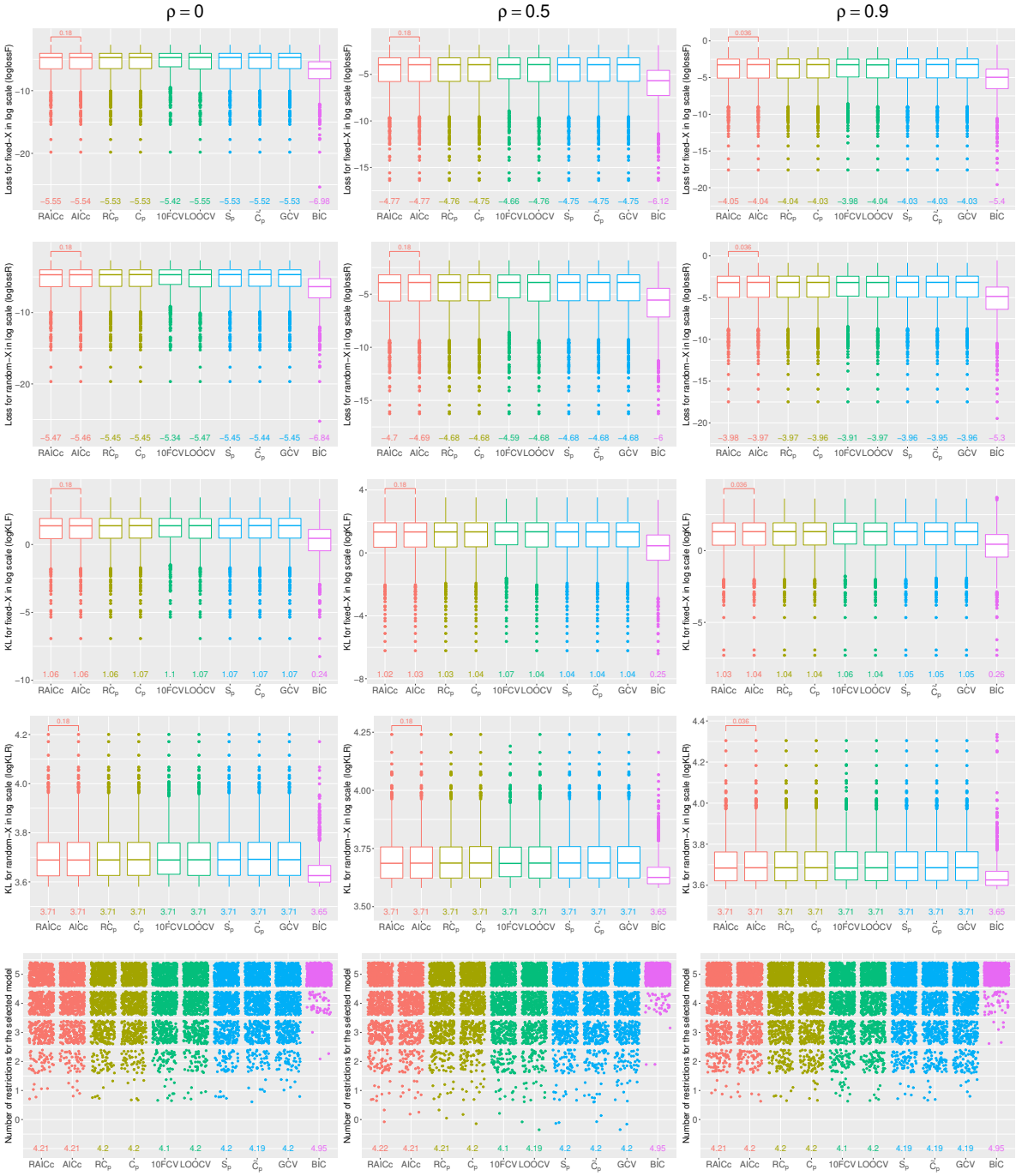

Figure S169: General restriction, Fixed-X, Ex1, $n = 500$, and high signal.

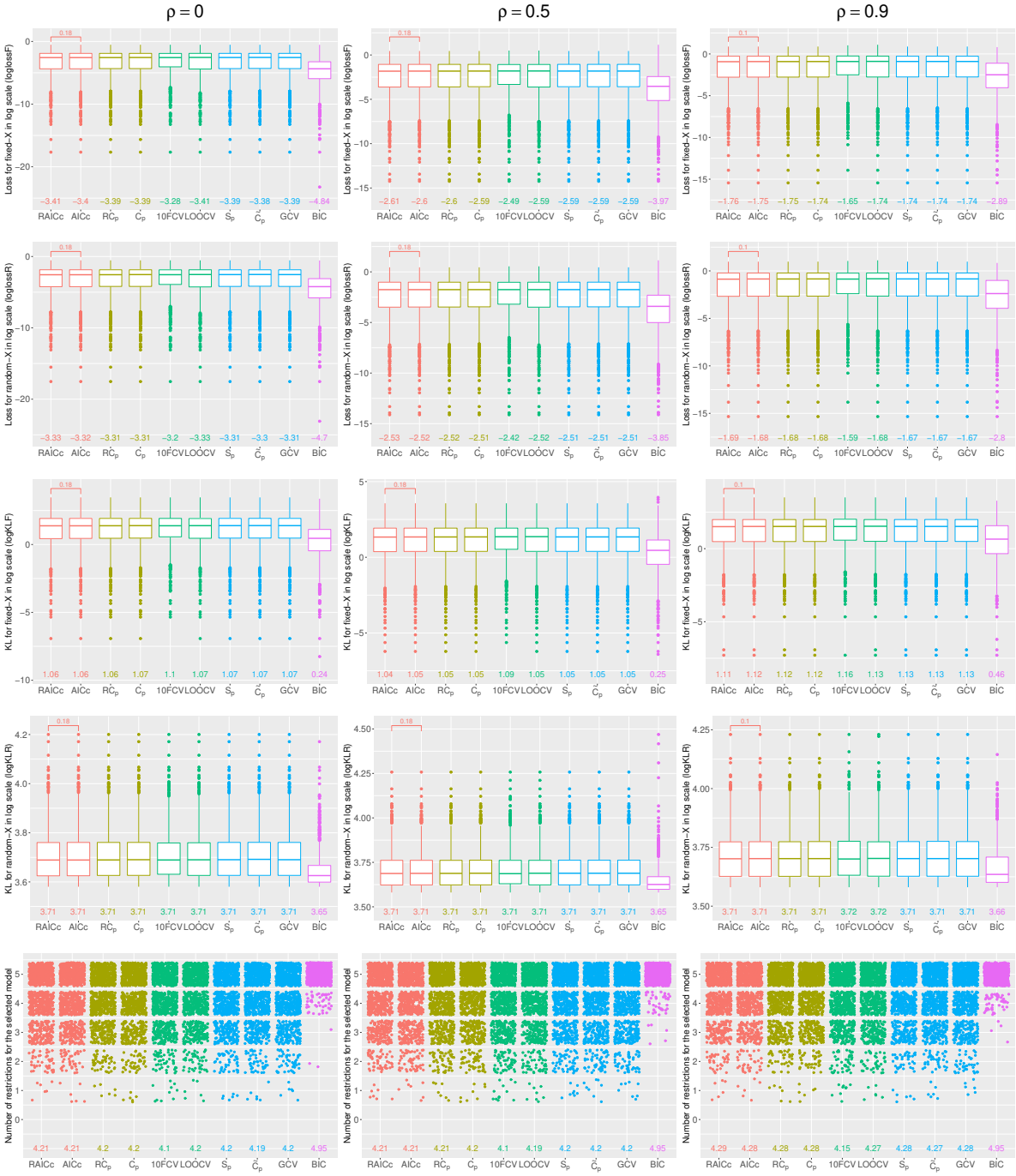

Figure S170: General restriction, Fixed-X, Ex1, $n = 500$, and medium signal.

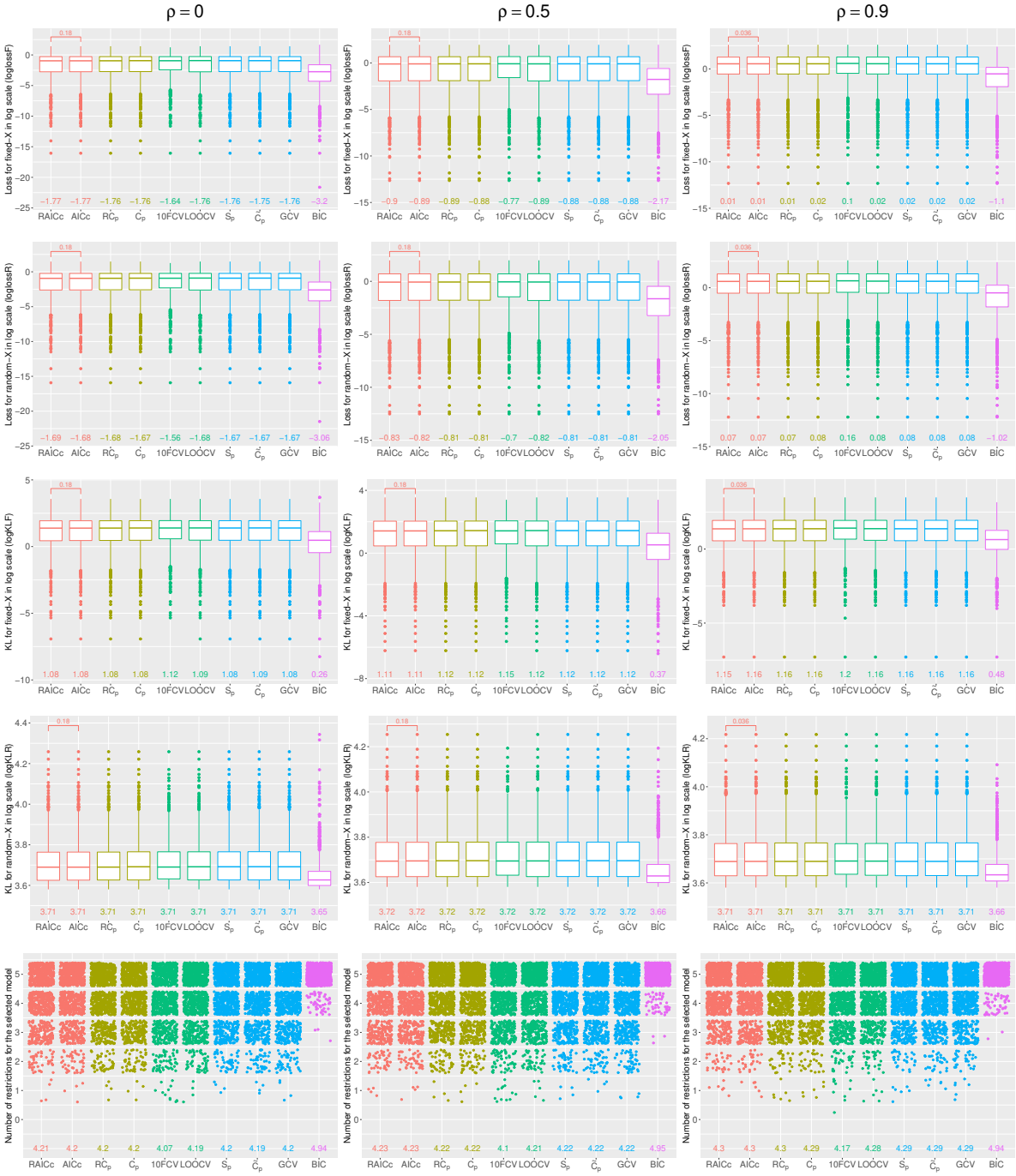

Figure S171: General restriction, Fixed-X, Ex1, $n = 500$, and low signal.

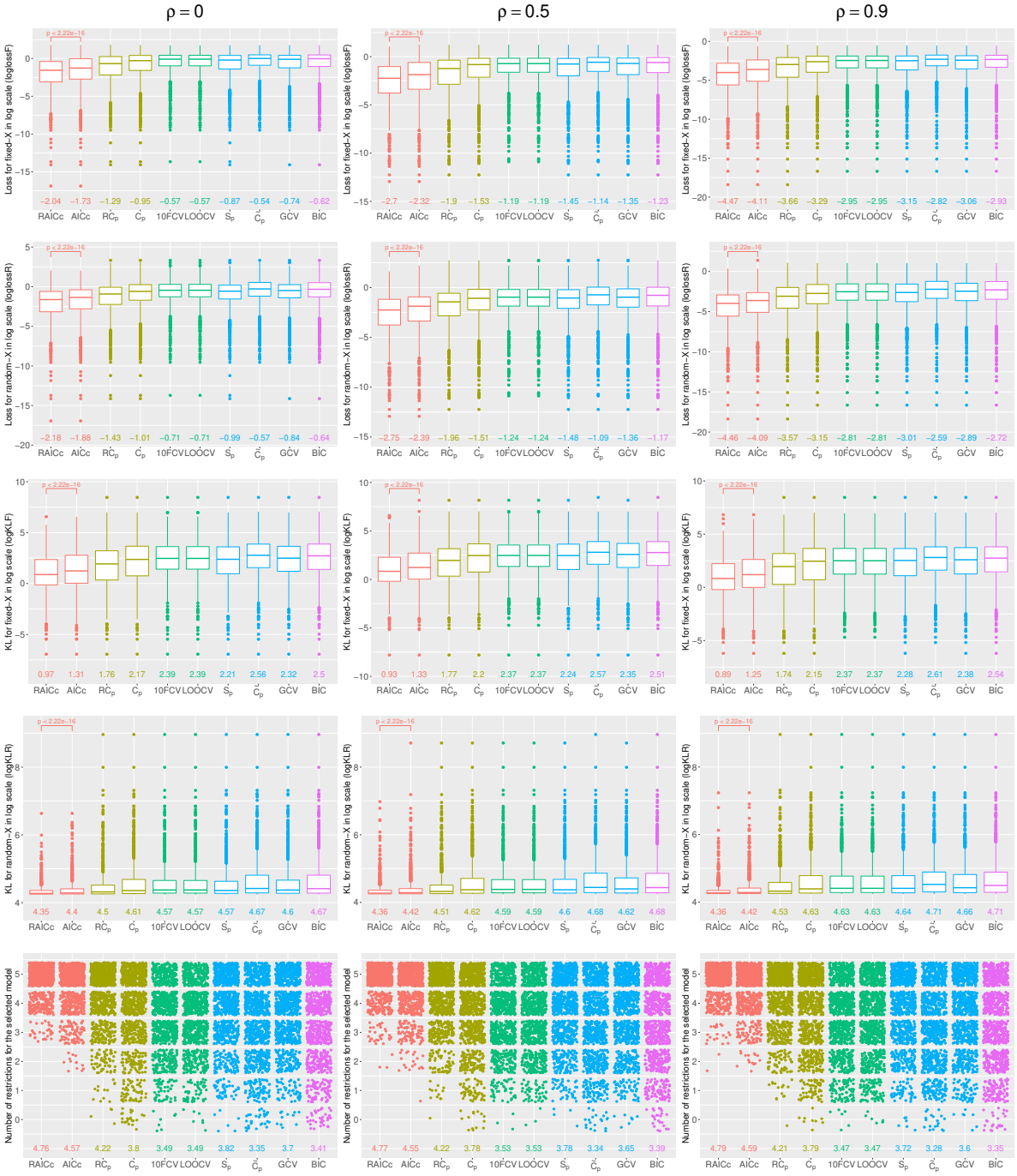

Figure S172: General restriction, Fixed-X, Ex2, $n = 10$, and high signal.

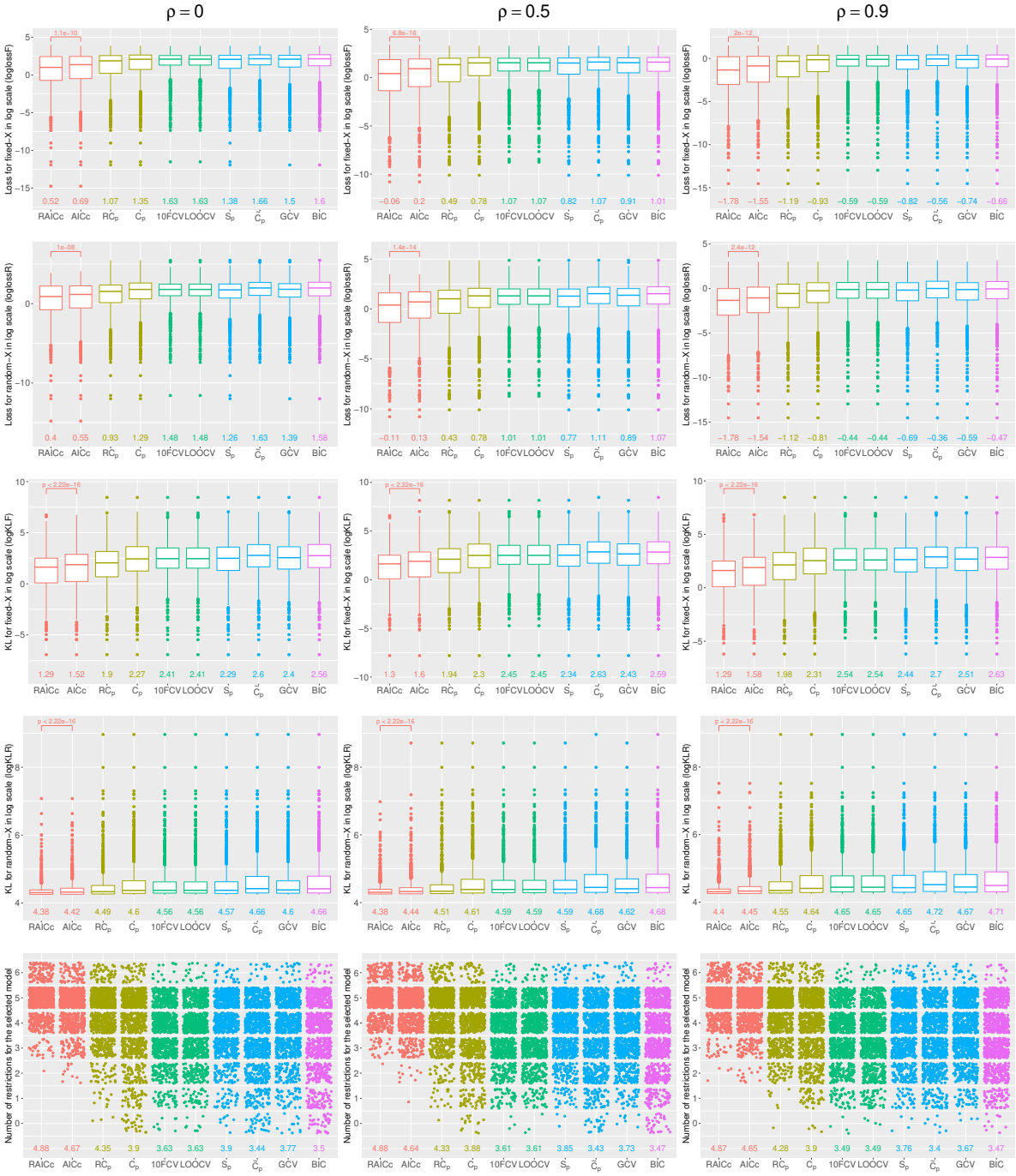

Figure S173: General restriction, Fixed-X, Ex2, $n = 10$, and medium signal.

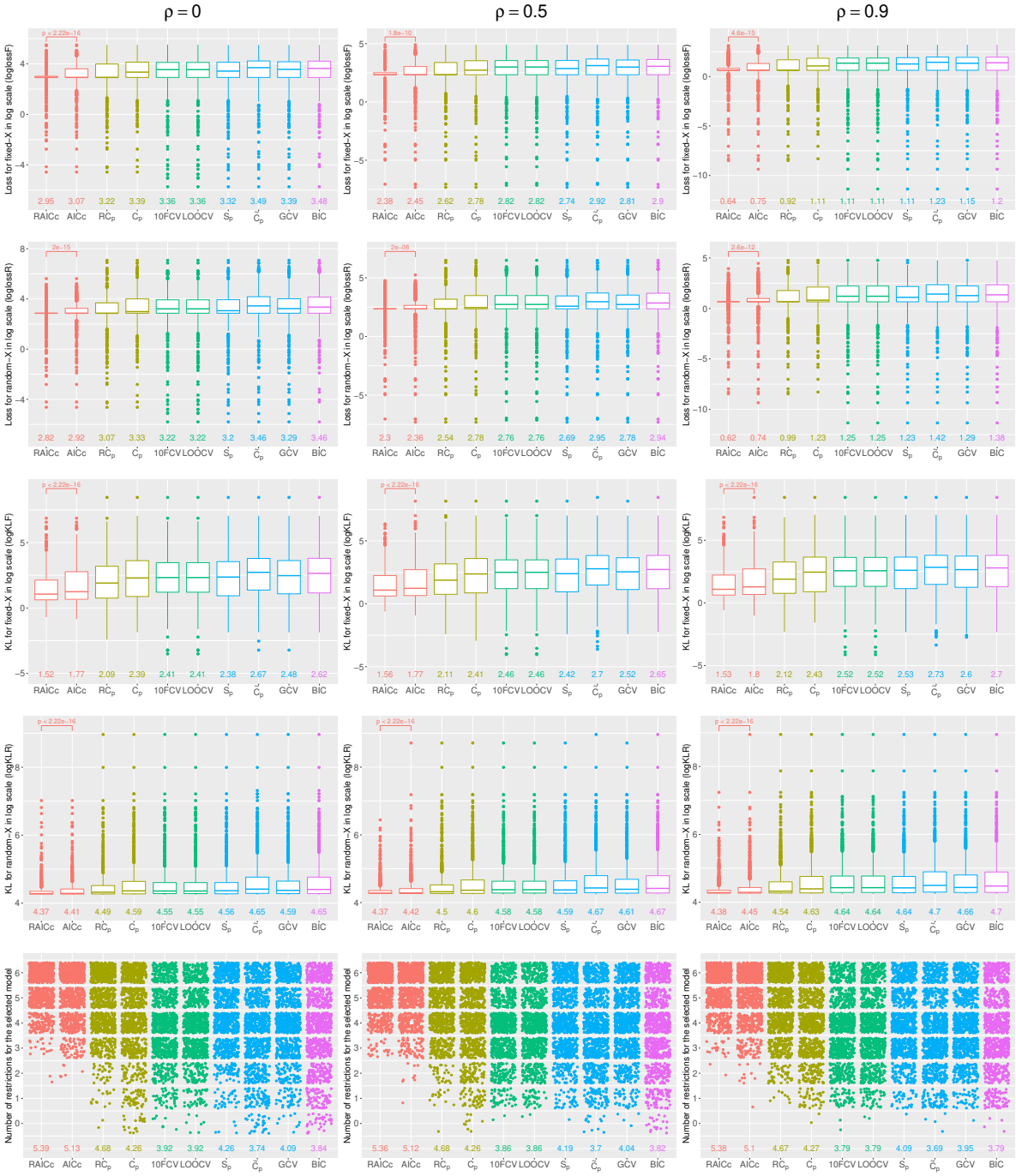

Figure S174: General restriction, Fixed-X, Ex2, $n = 10$, and low signal.

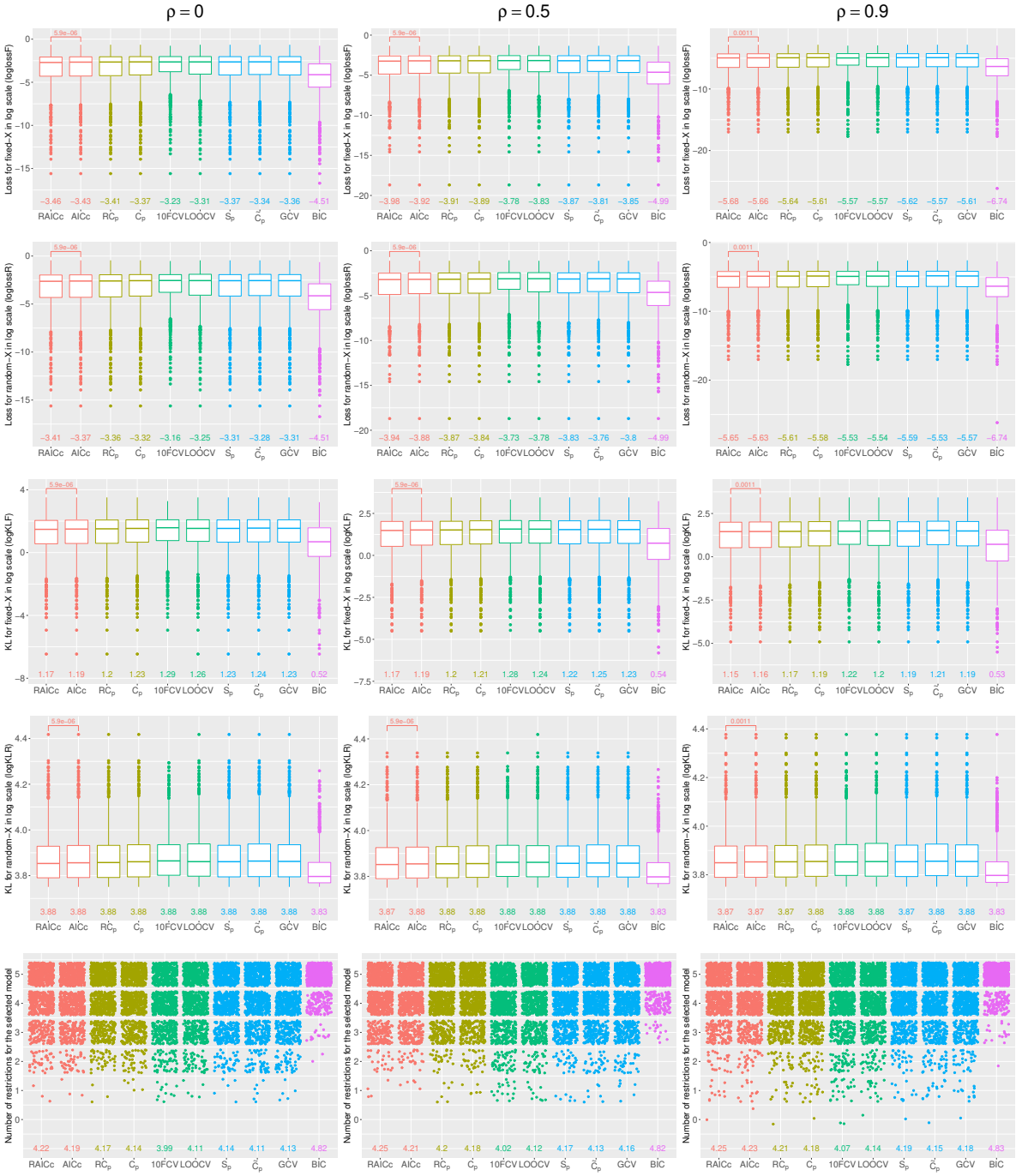

Figure S175: General restriction, Fixed-X, Ex2, $n = 100$, and high signal.

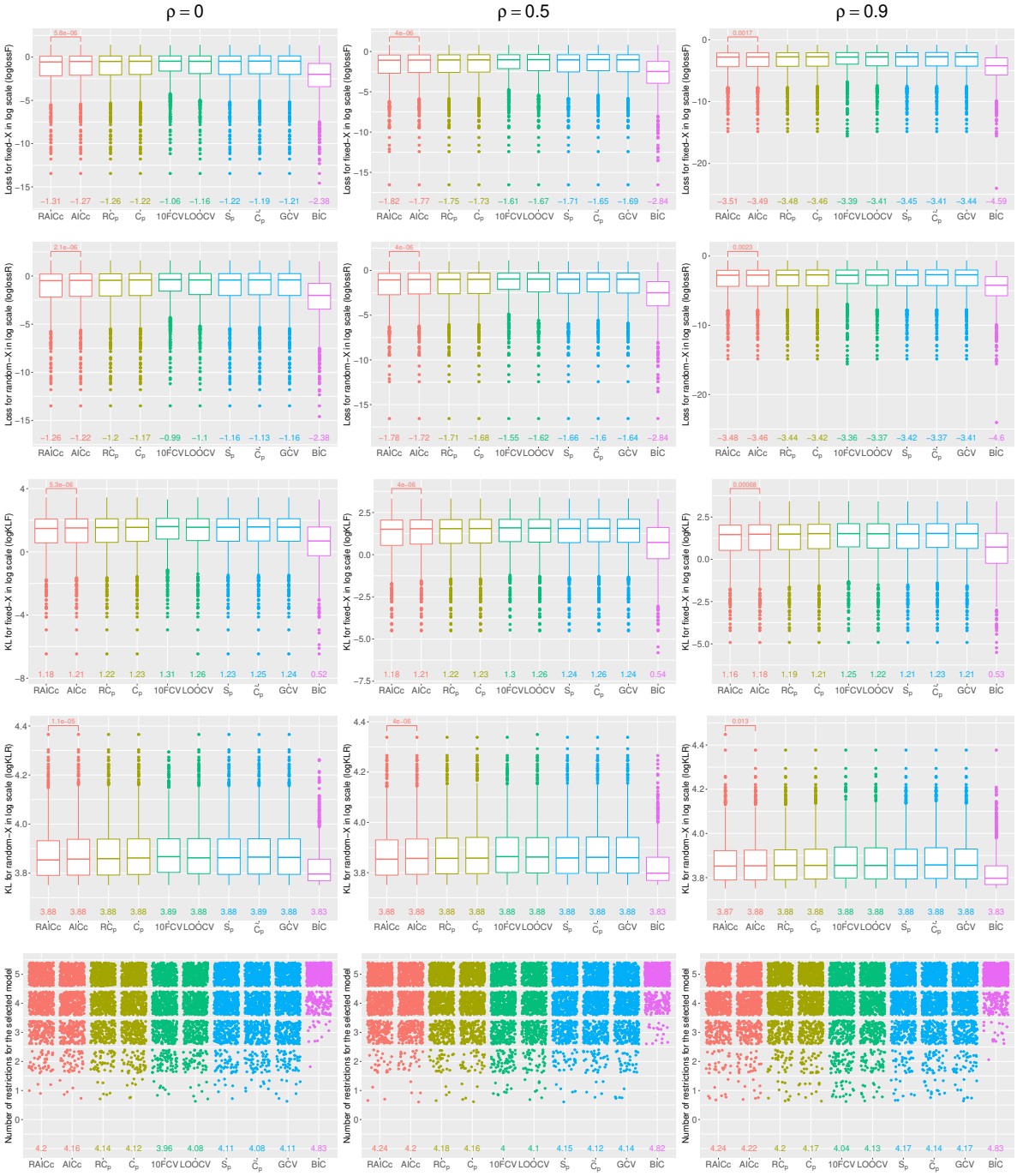

Figure S176: General restriction, Fixed-X, Ex2, $n = 100$, and medium signal.

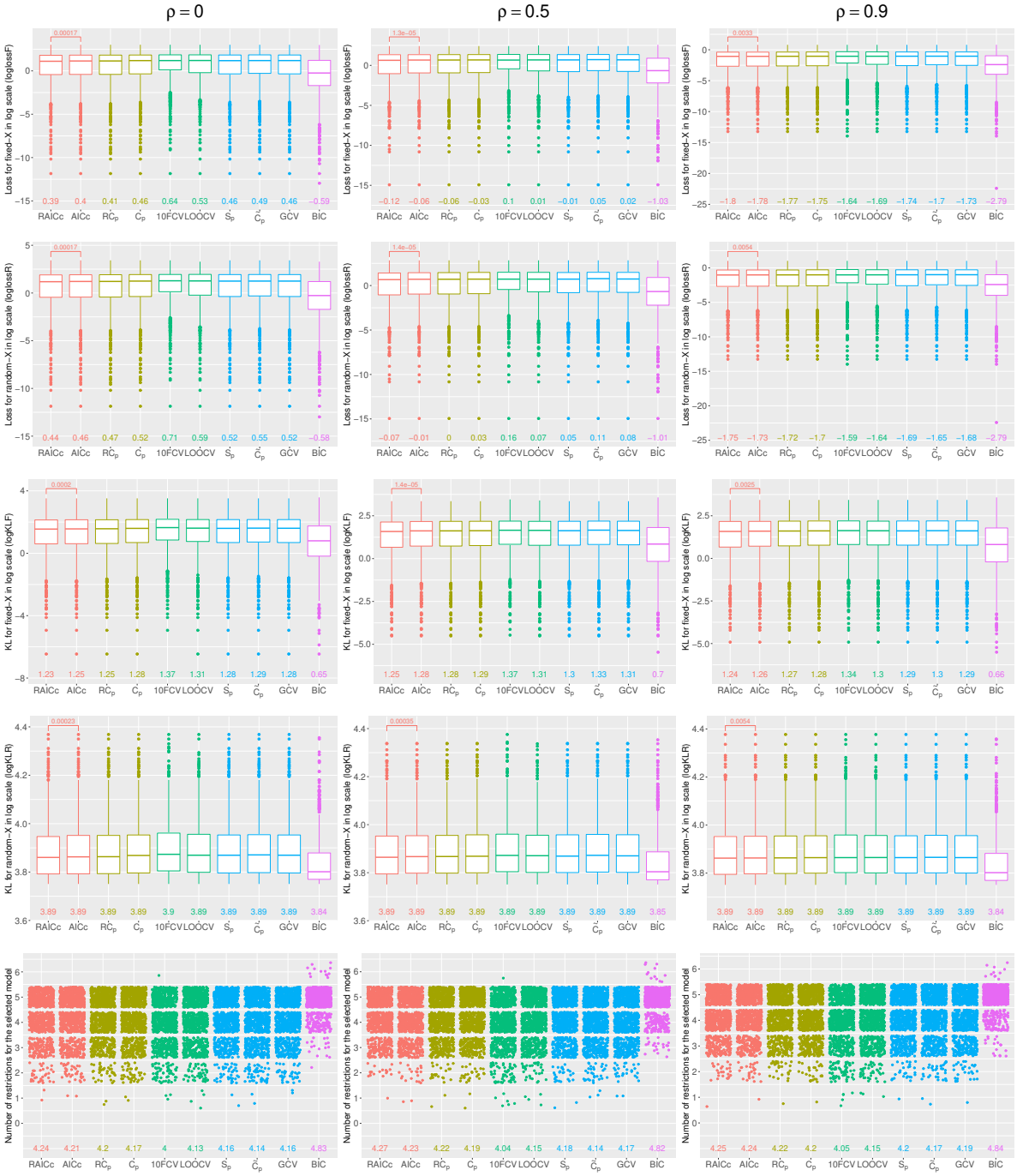

Figure S177: General restriction, Fixed-X, Ex2, $n = 100$, and low signal.

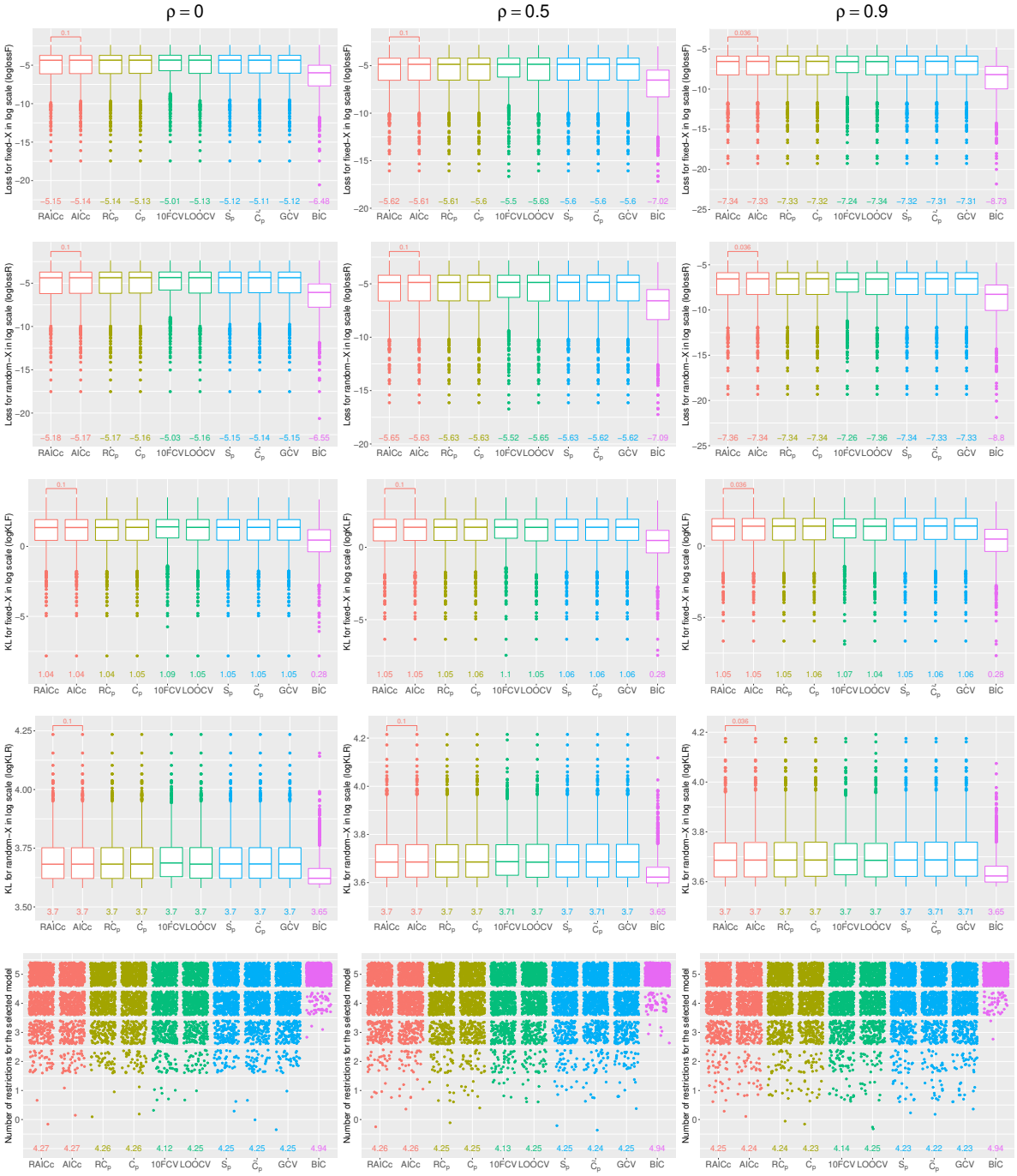

Figure S178: General restriction, Fixed-X, Ex2, $n = 500$, and high signal.

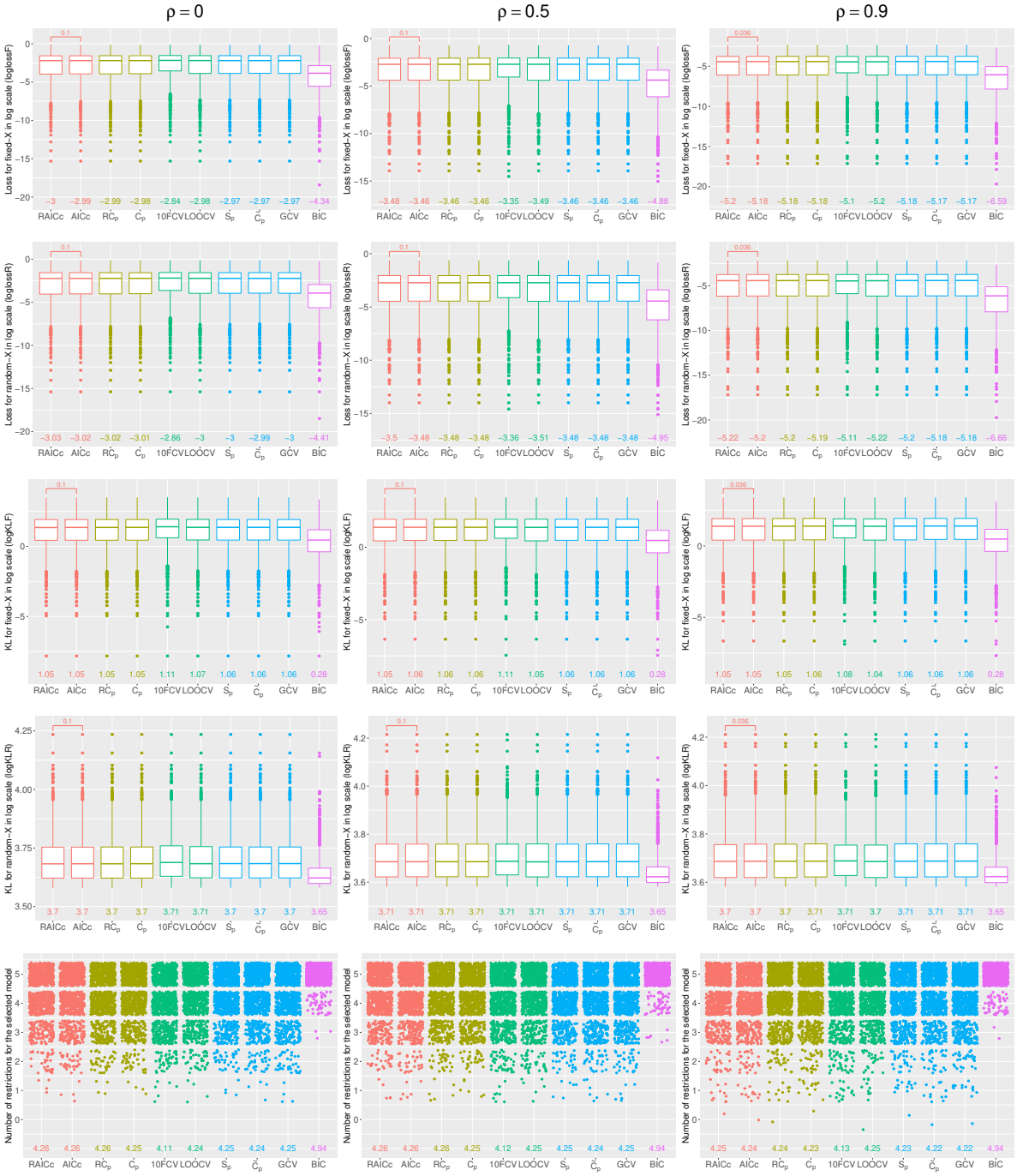

Figure S179: General restriction, Fixed-X, Ex2, $n = 500$, and medium signal.

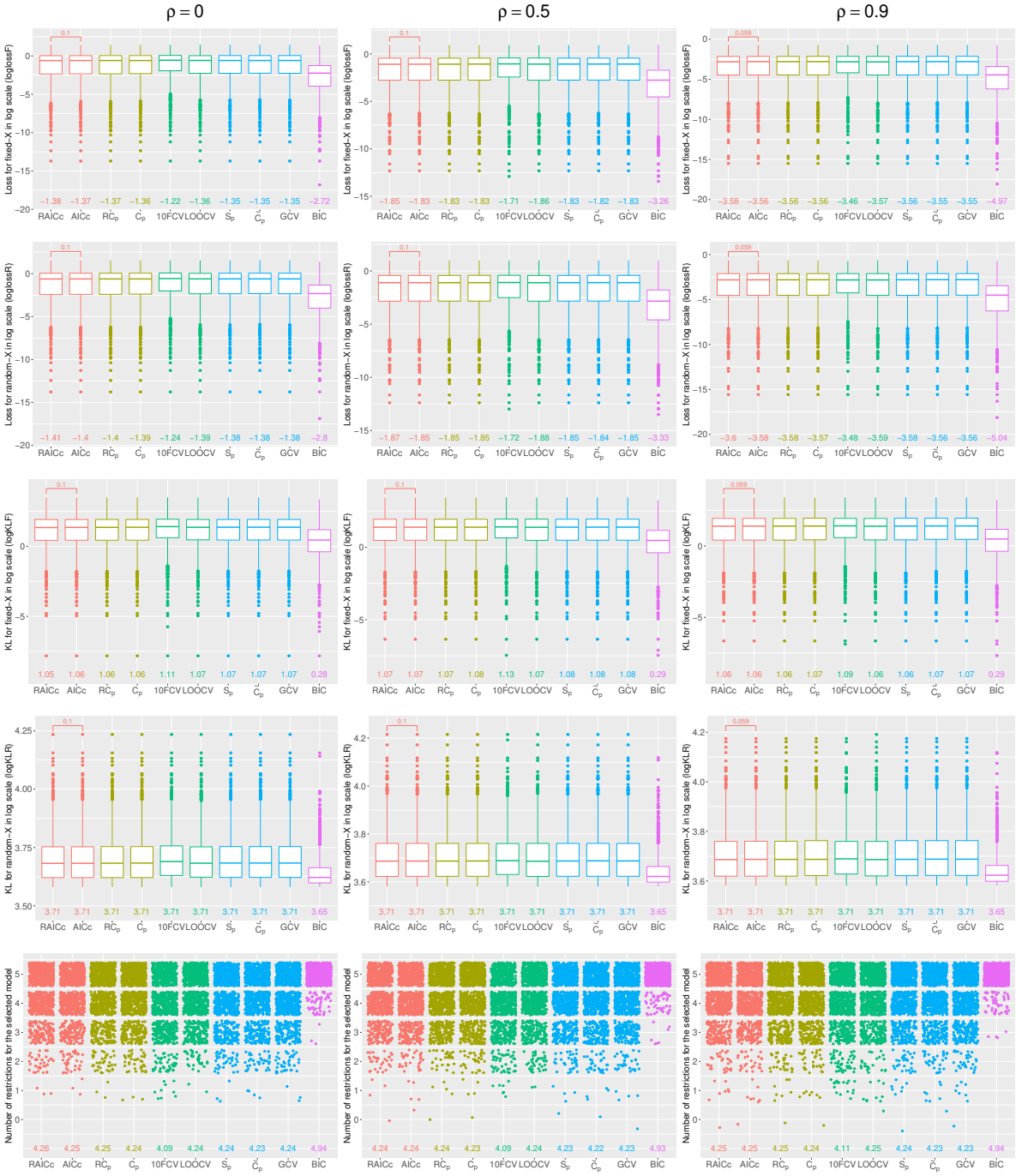

Figure S180: General restriction, Fixed-X, Ex2, $n = 500$, and low signal.

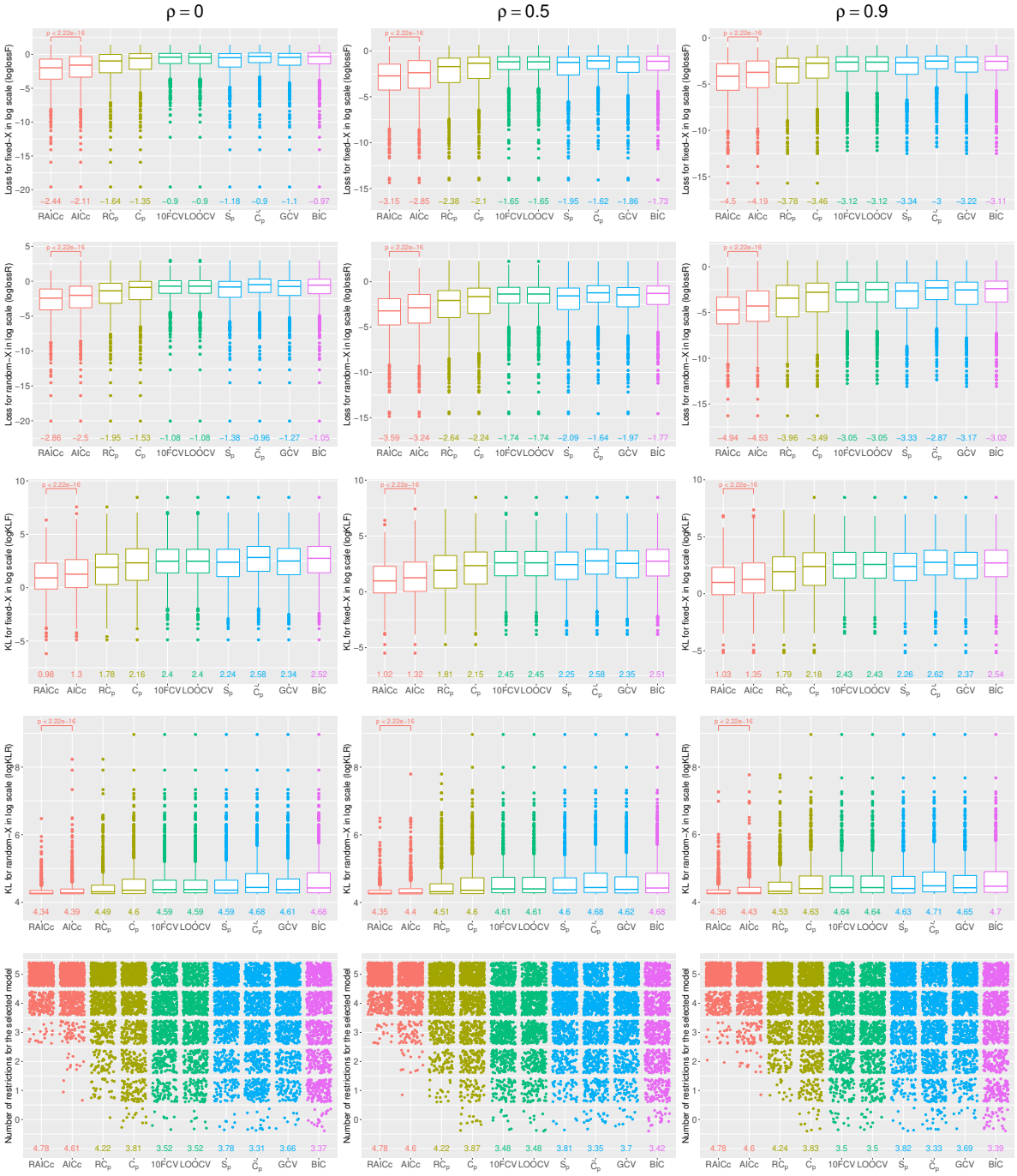

Figure S181: General restriction, Fixed-X, Ex3, $n = 10$, and high signal.

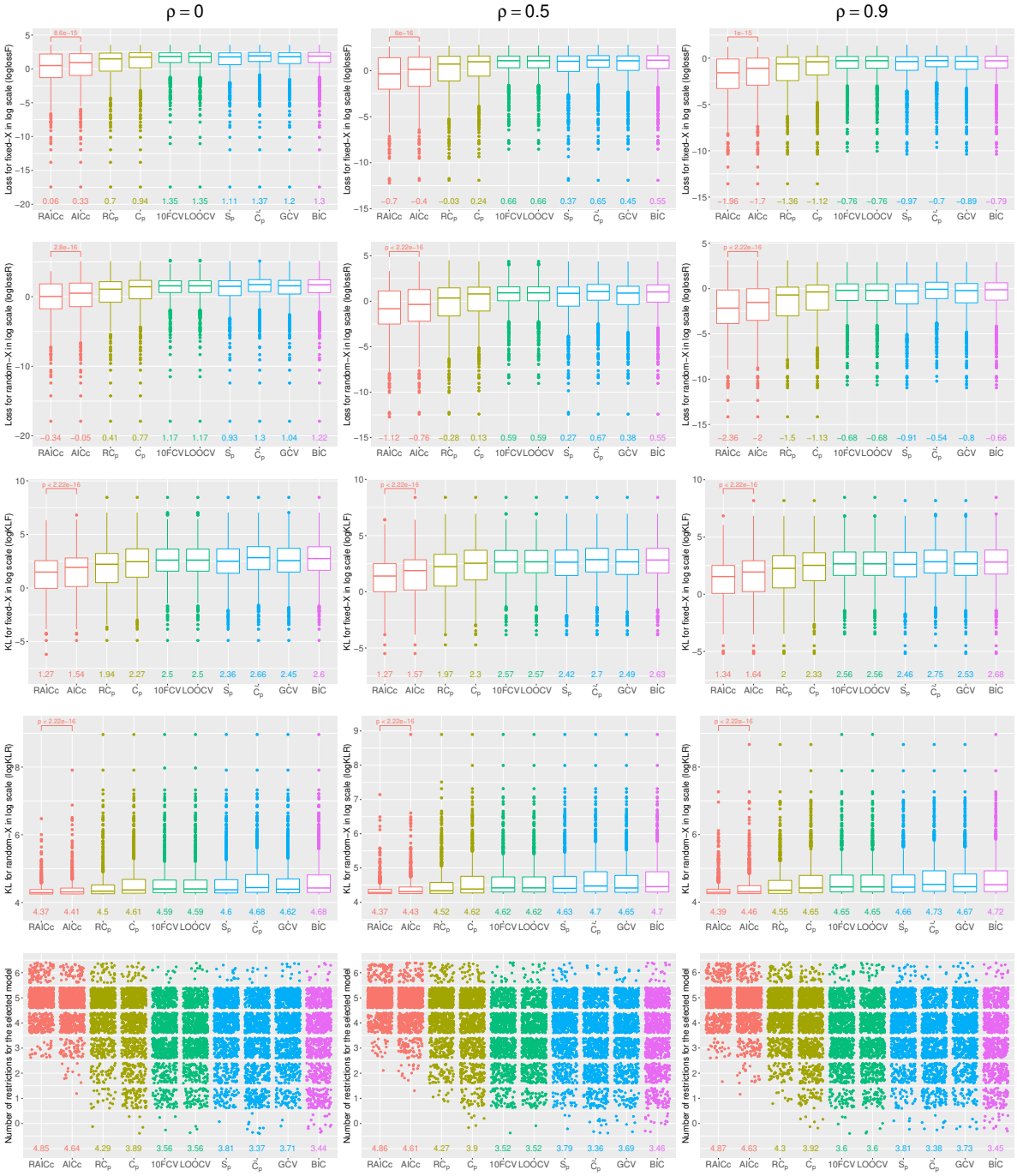

Figure S182: General restriction, Fixed-X, Ex3, $n = 10$, and medium signal.

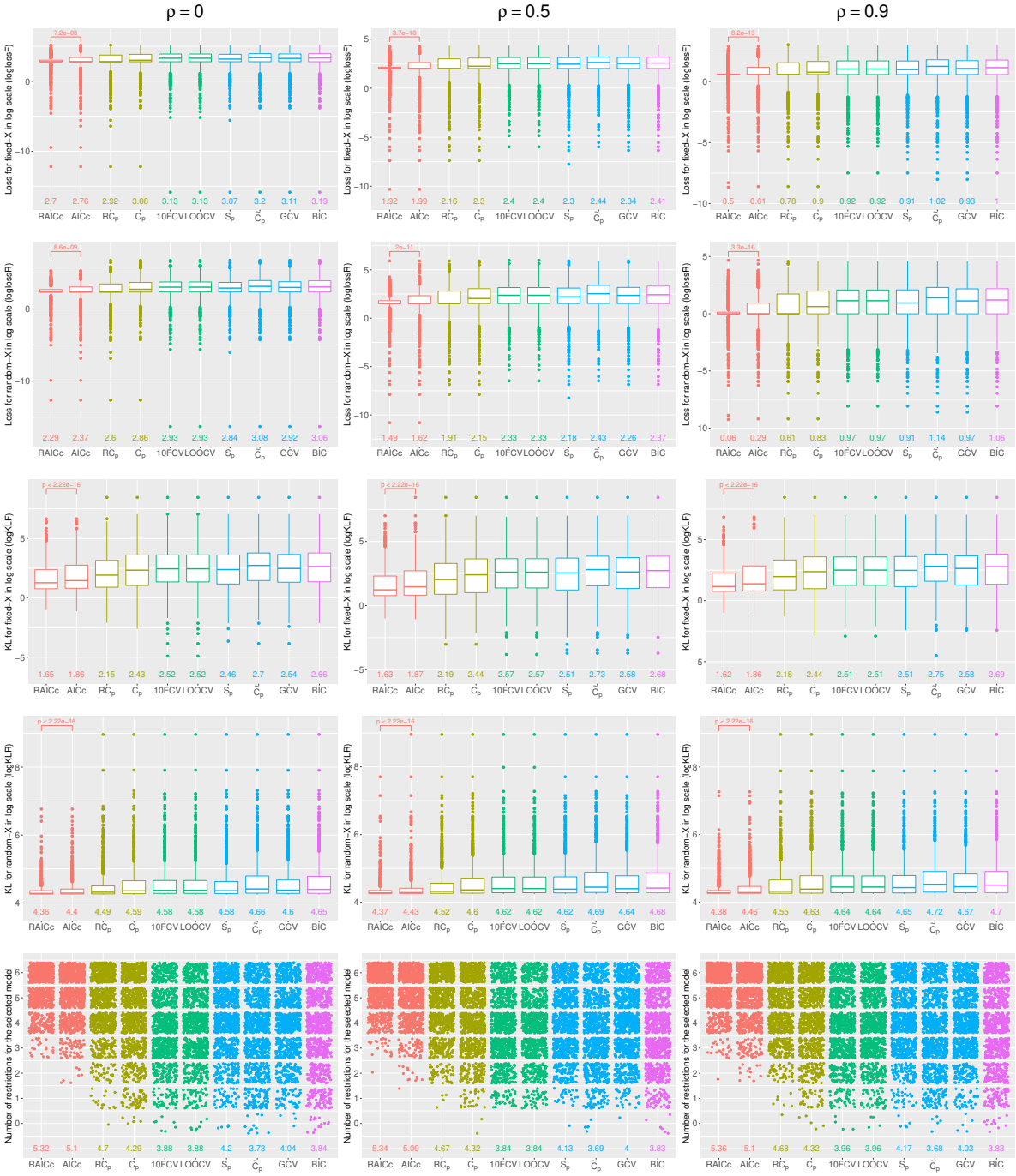

Figure S183: General restriction, Fixed-X, Ex3, $n = 10$, and low signal.

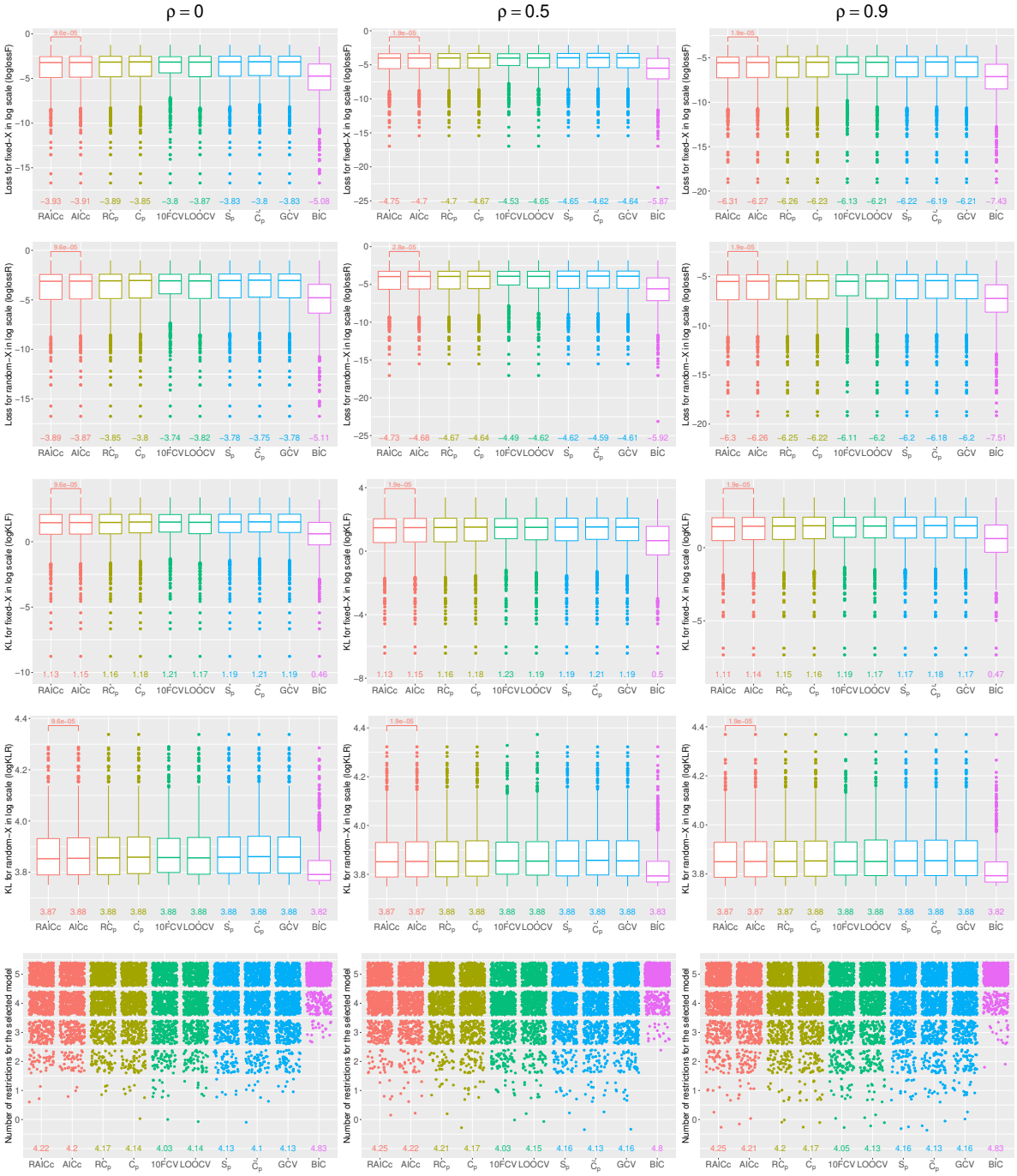

Figure S184: General restriction, Fixed-X, Ex3, $n = 100$, and high signal.

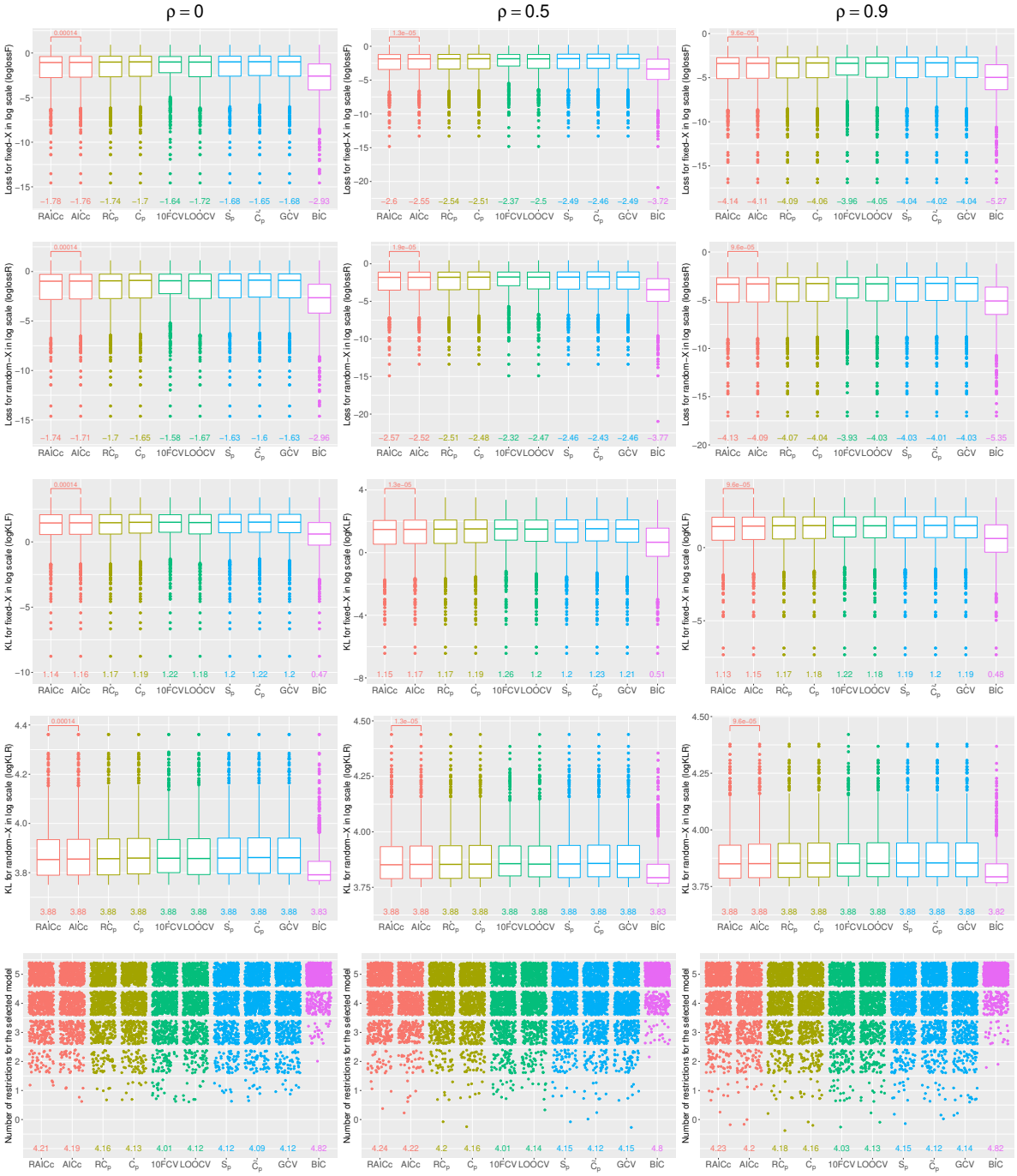

Figure S185: General restriction, Fixed-X, Ex3, $n = 100$, and medium signal.

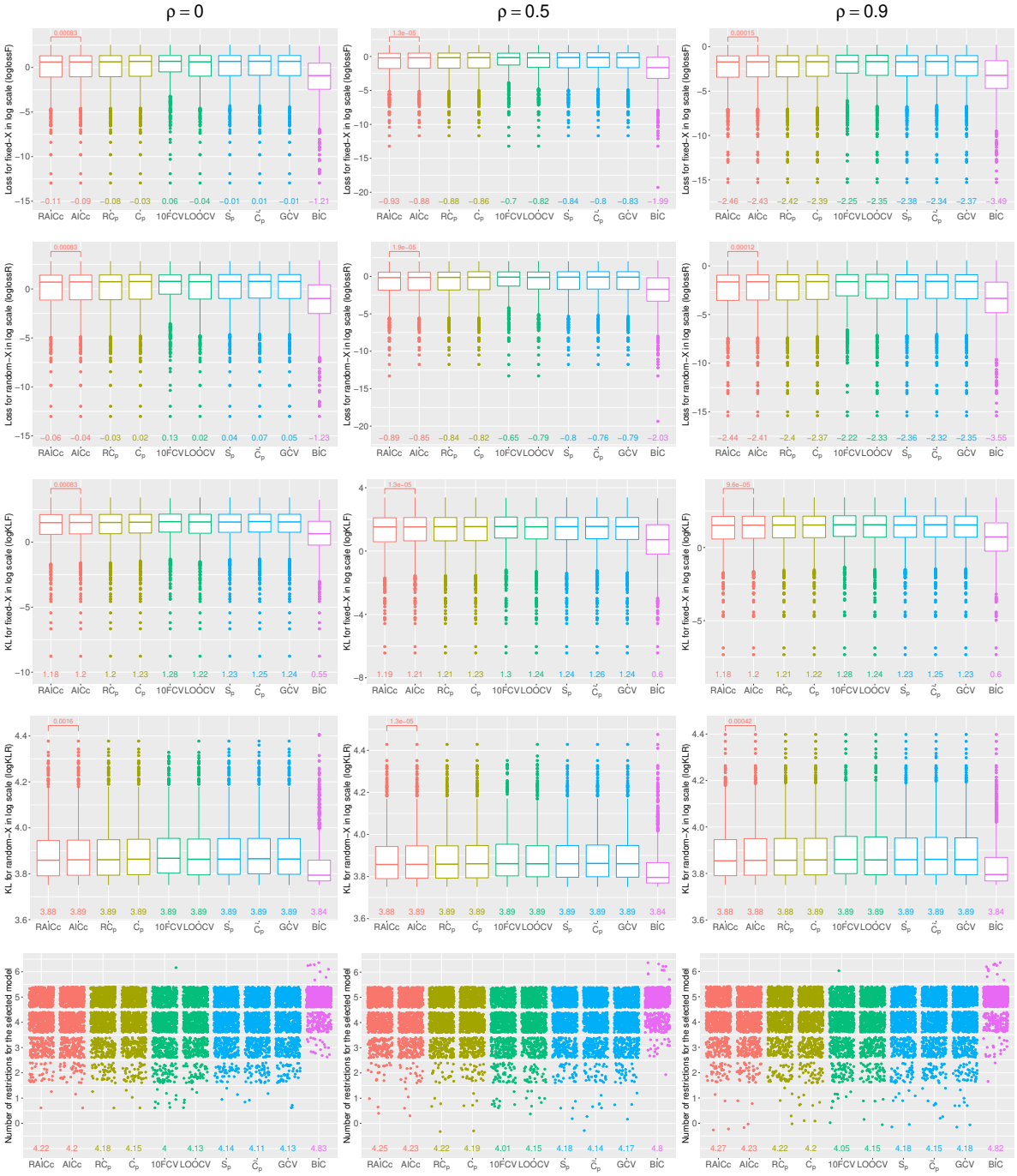

Figure S186: General restriction, Fixed-X, Ex3, $n = 100$, and low signal.

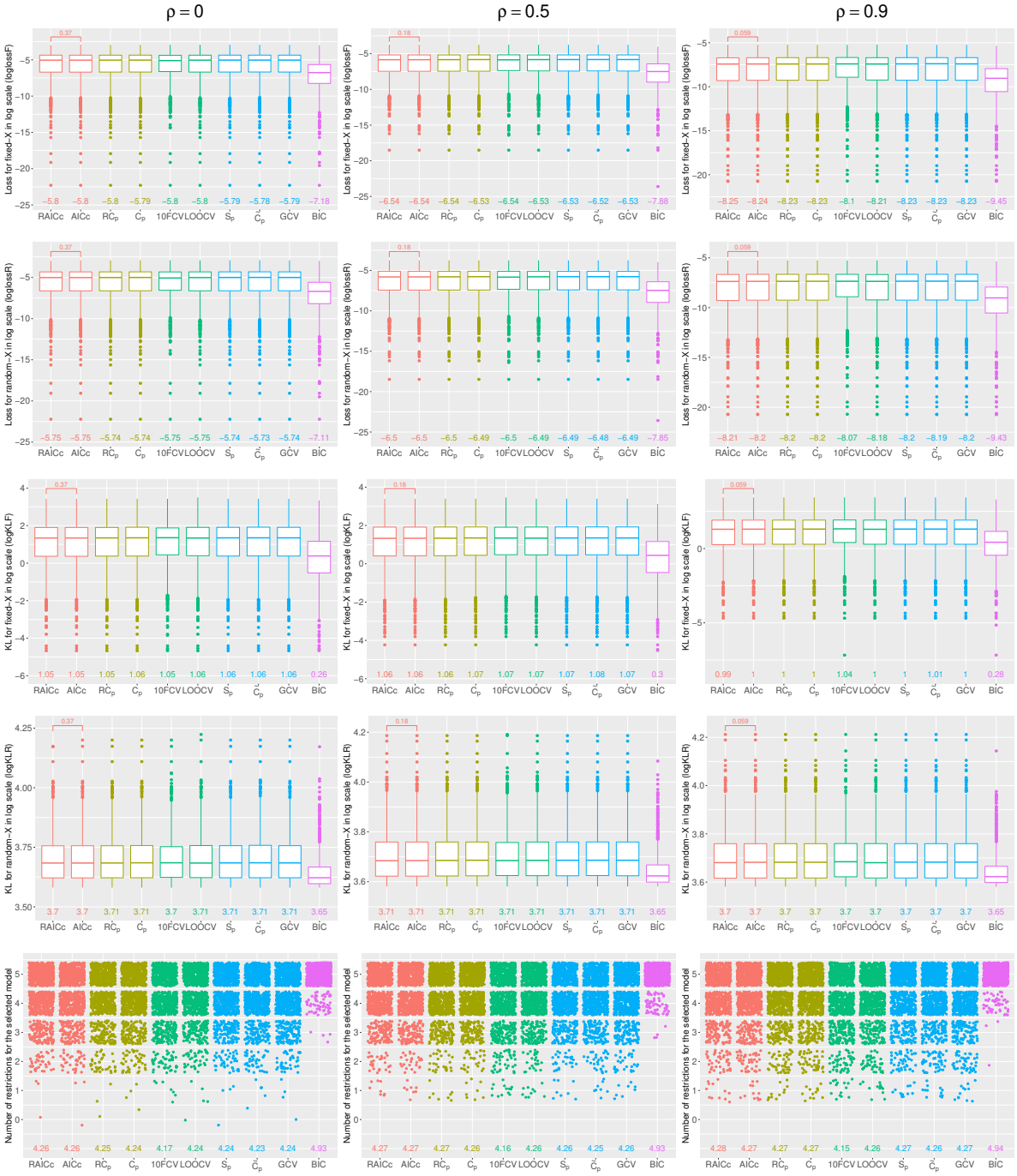

Figure S187: General restriction, Fixed-X, Ex3, $n = 500$, and high signal.

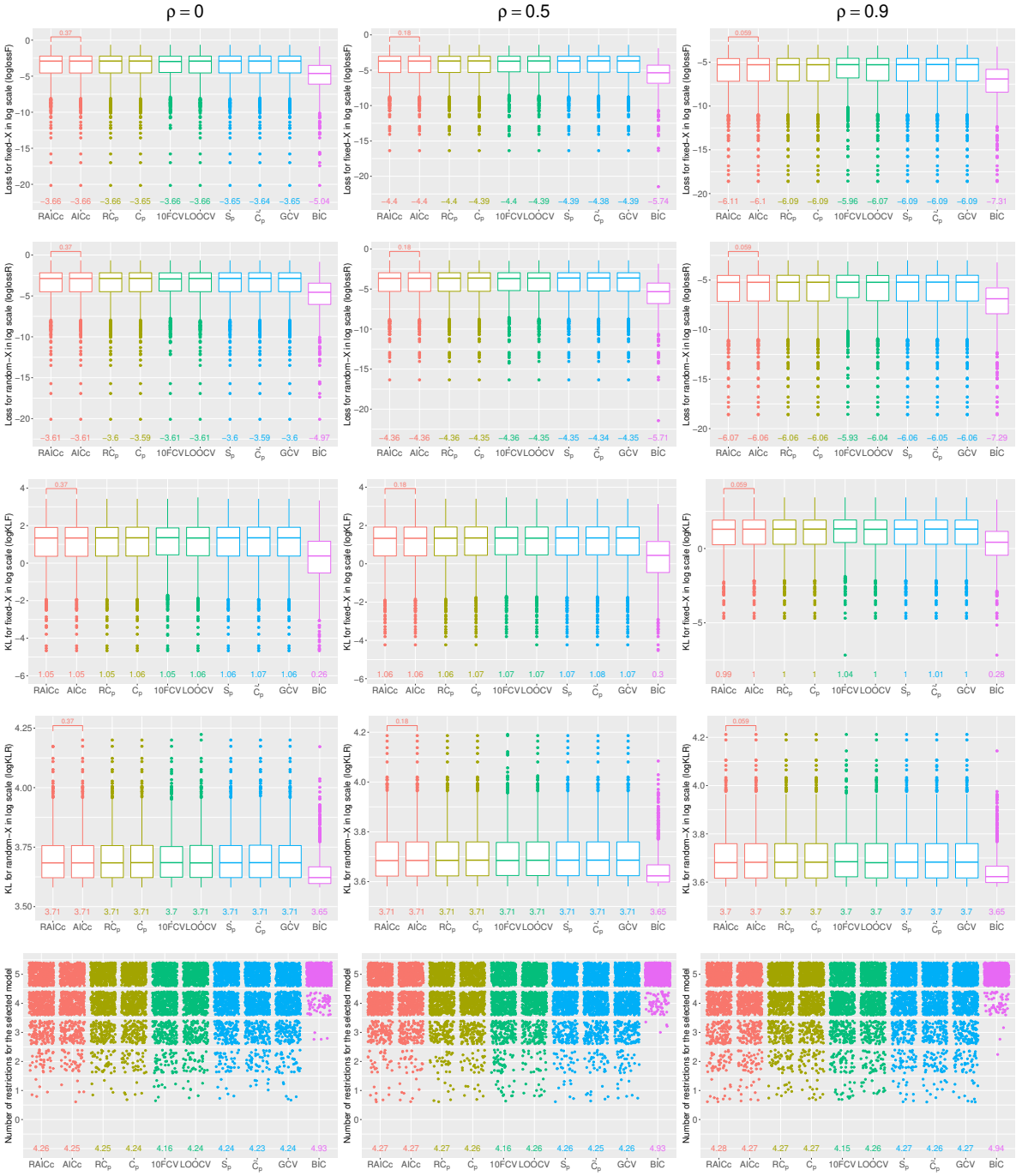

Figure S188: General restriction, Fixed-X, Ex3, $n = 500$, and medium signal.

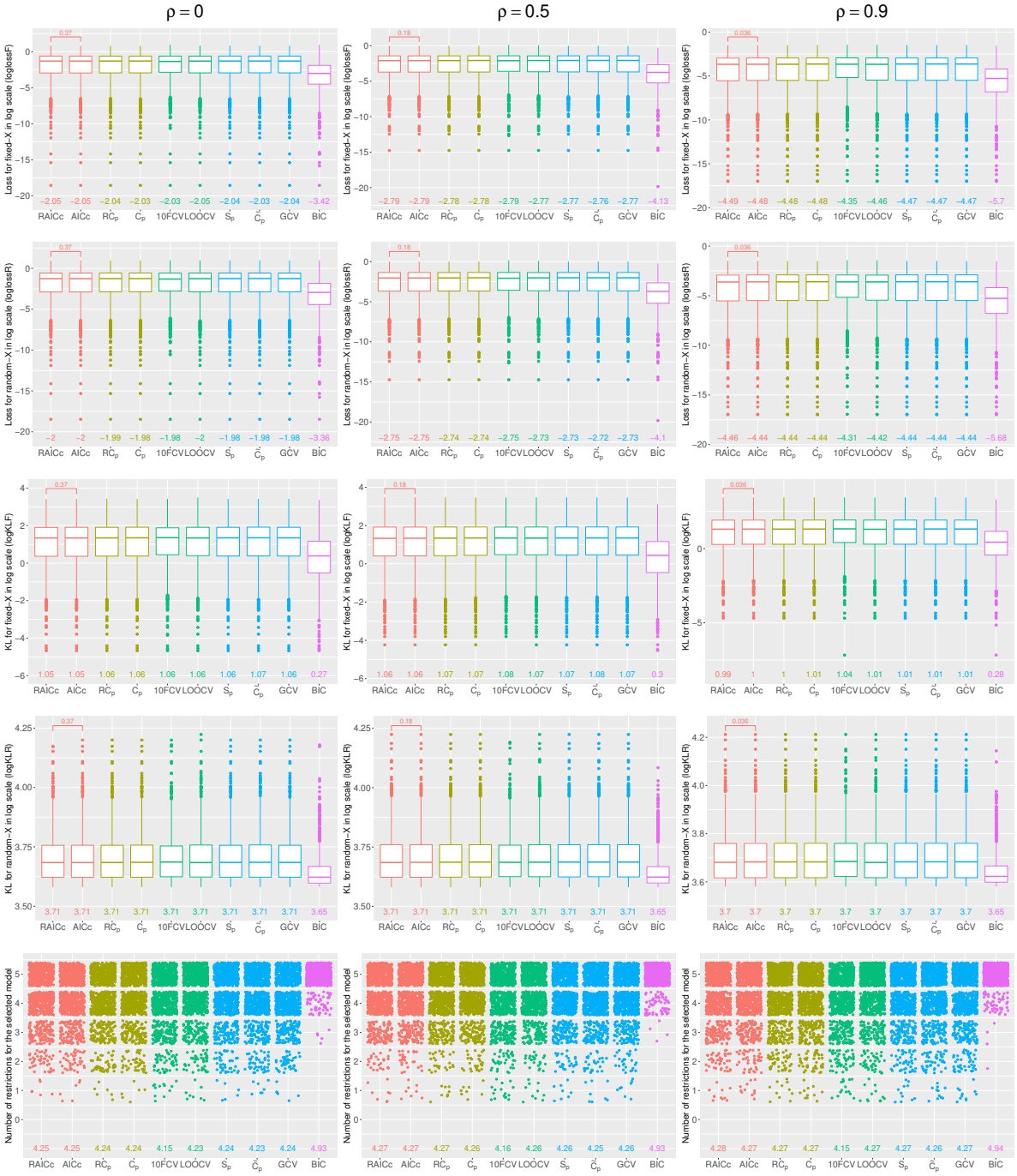

Figure S189: General restriction, Fixed-X, Ex3, $n = 500$, and low signal.

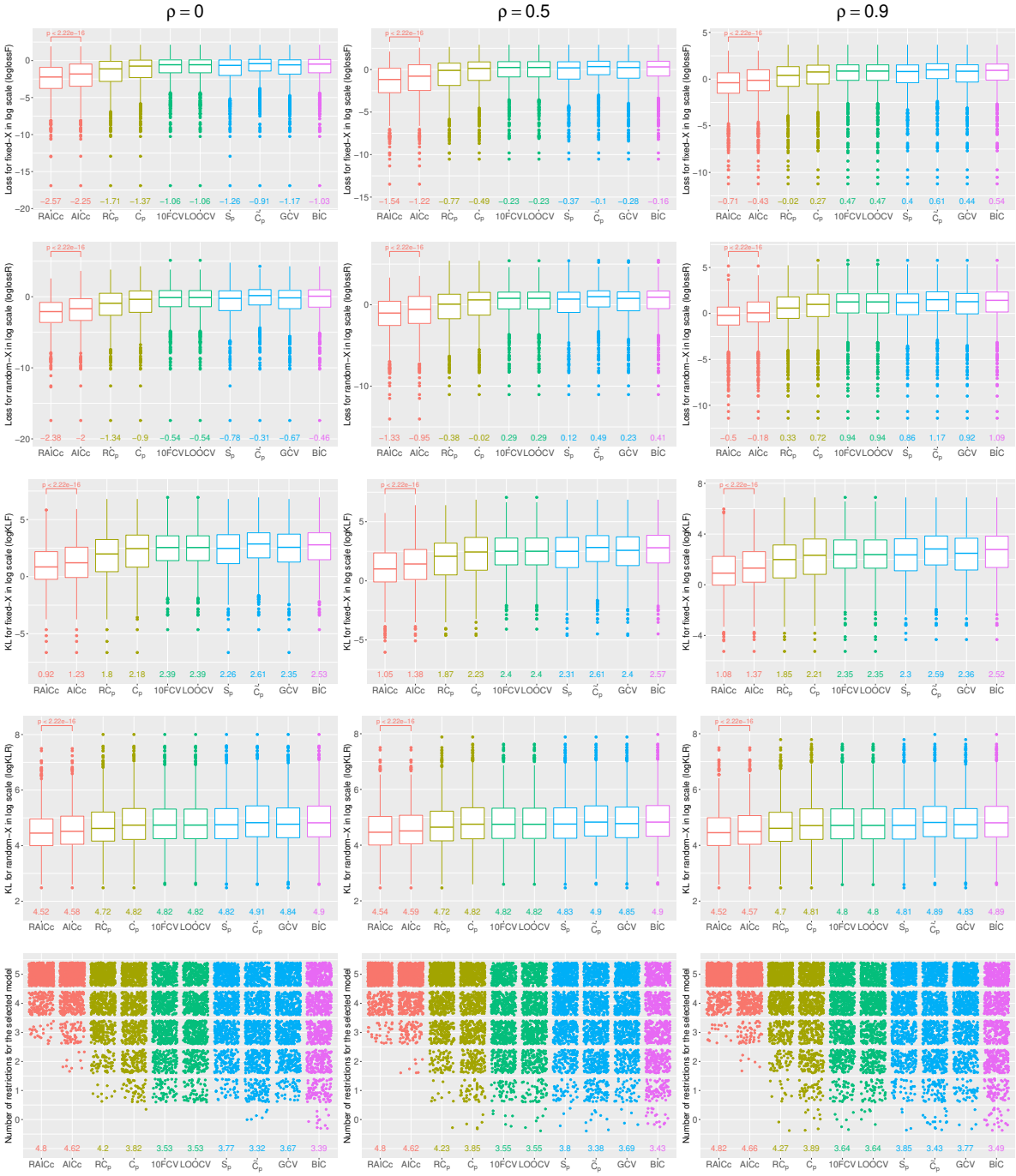

Figure S190: General restriction, Random-X, Ex1, $n = 10$, and high signal.

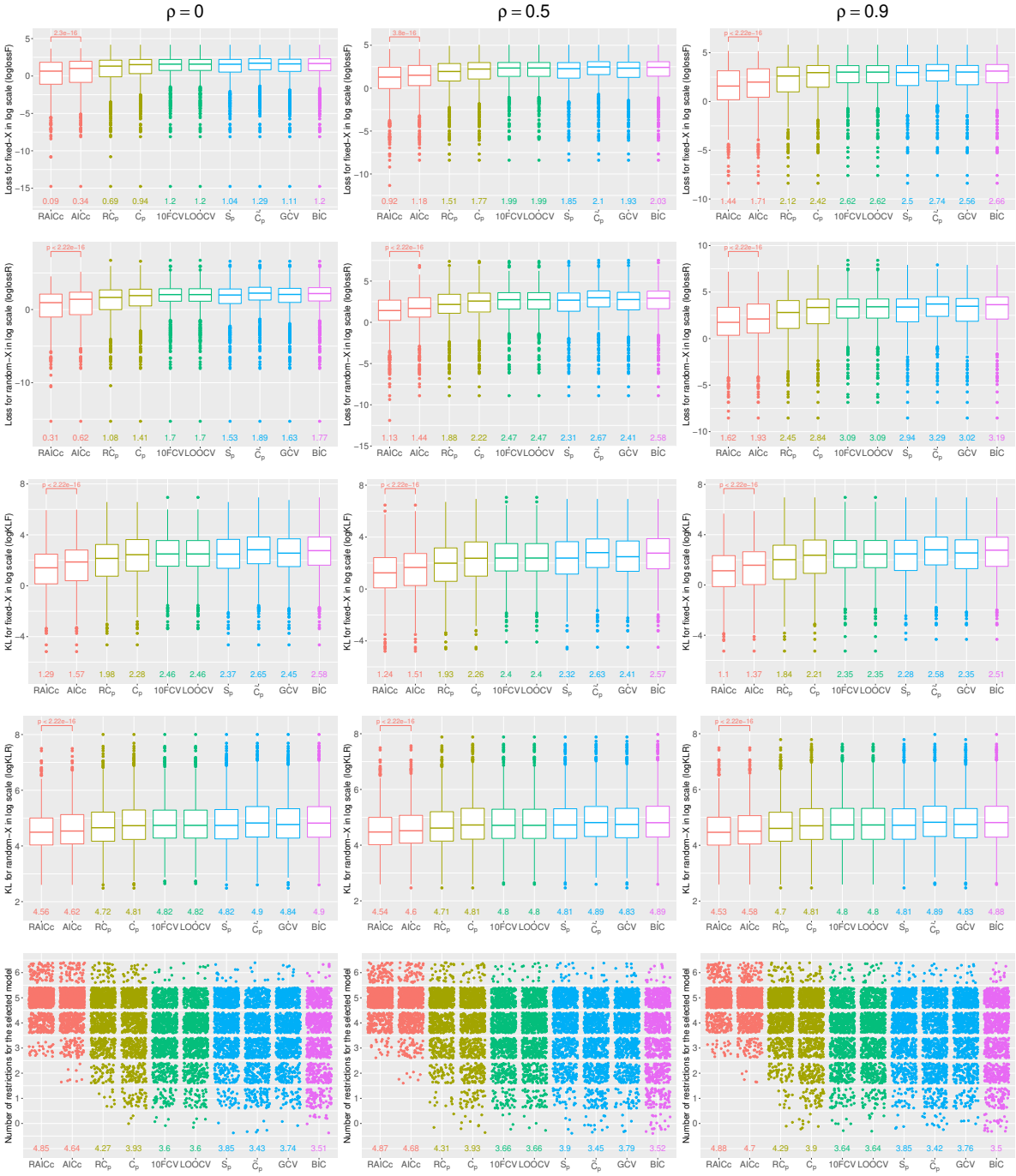

Figure S191: General restriction, Random-X, Ex1, $n = 10$, and medium signal.

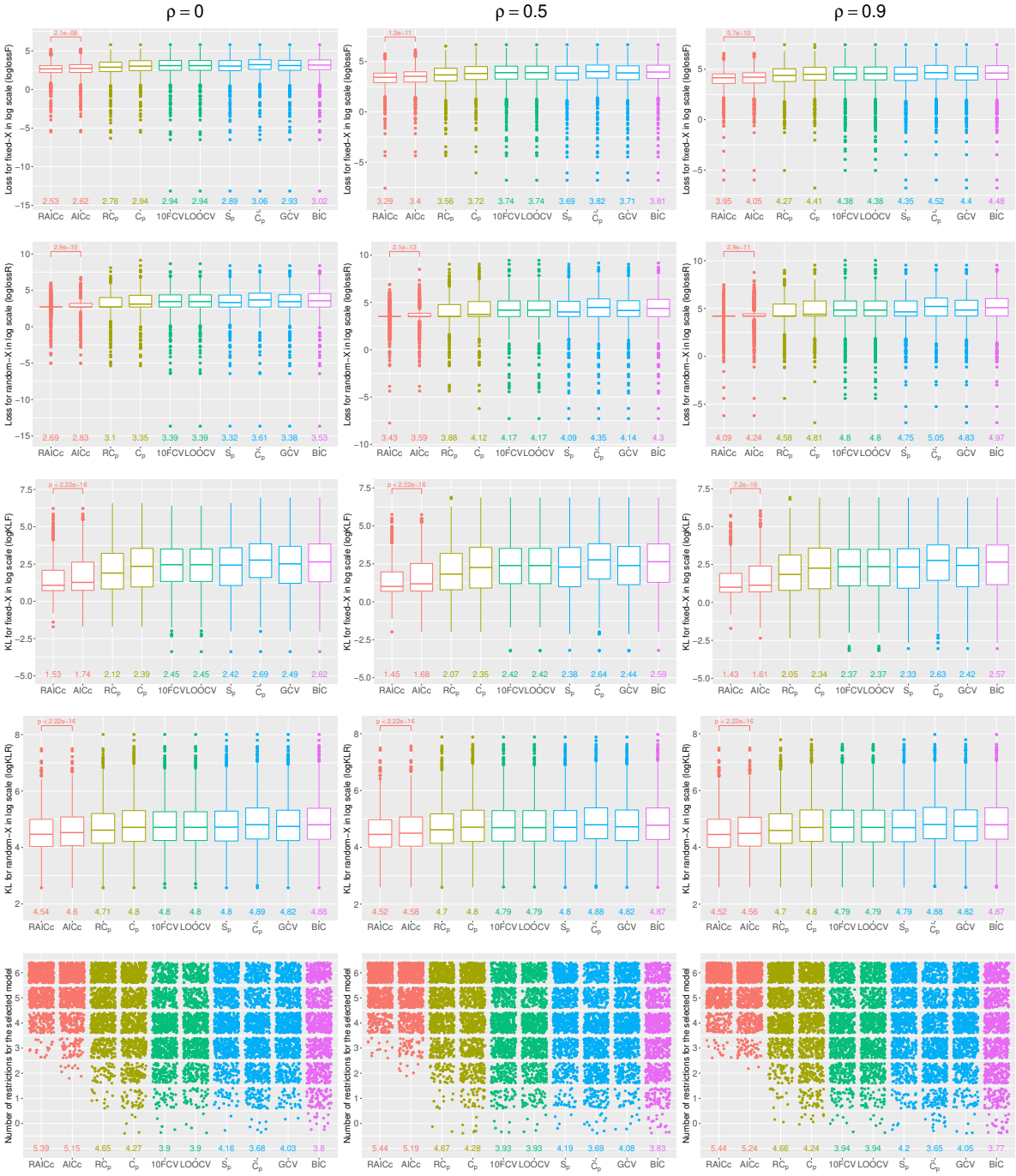

Figure S192: General restriction, Random-X, Ex1, $n = 10$, and low signal.

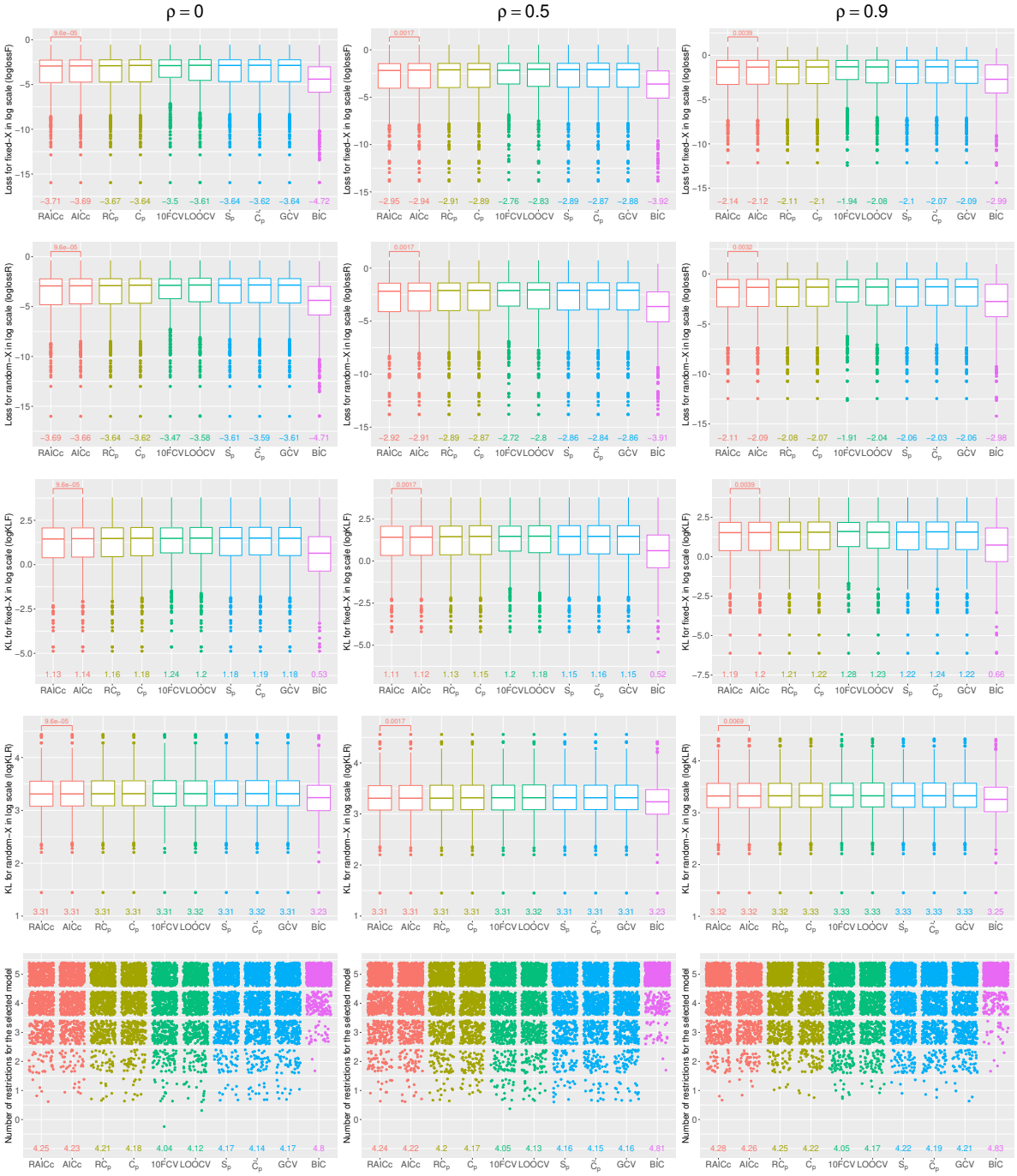

Figure S193: General restriction, Random-X, Ex1, $n = 100$, and high signal.

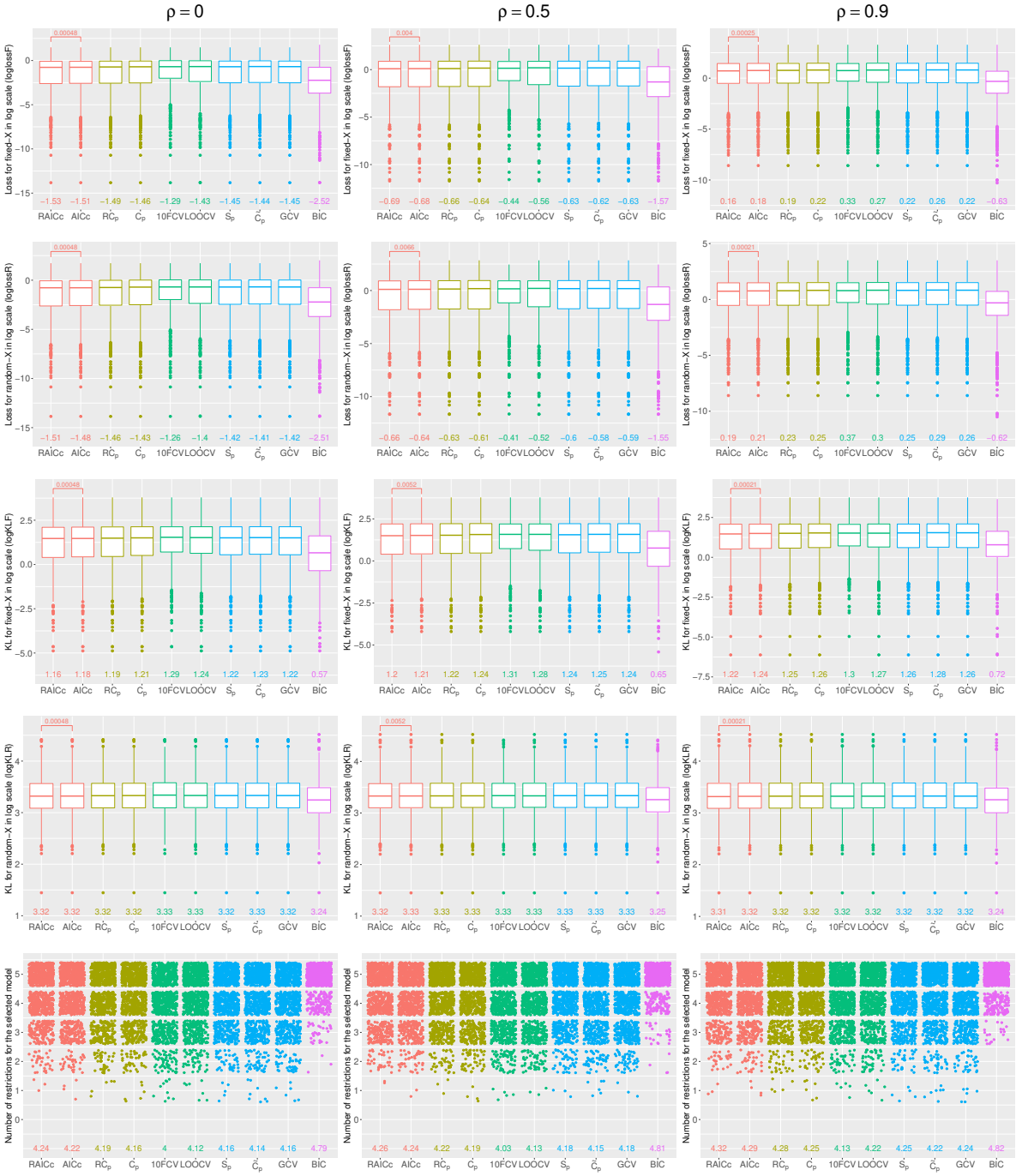

Figure S194: General restriction, Random-X, Ex1, $n = 100$, and medium signal.

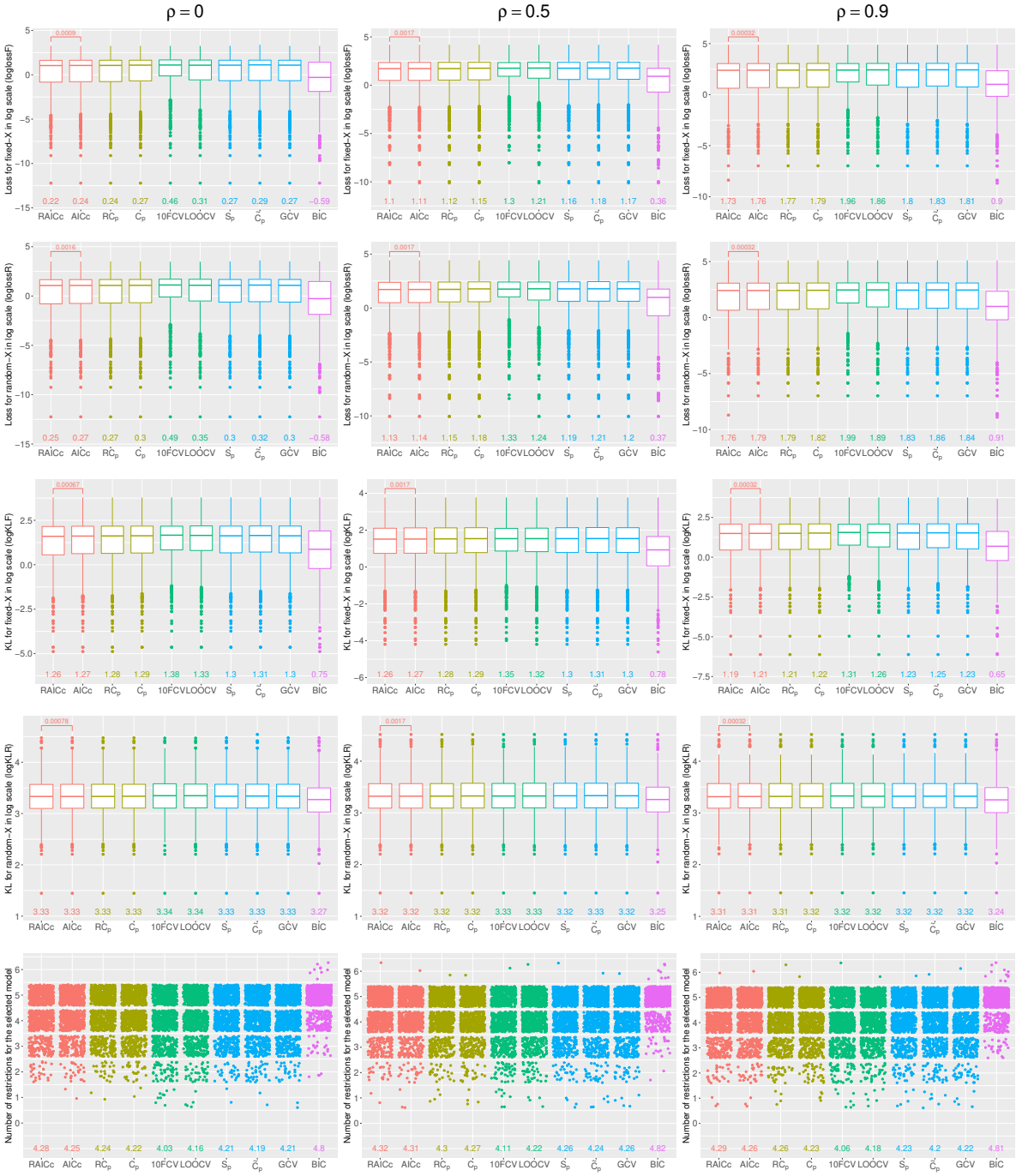

Figure S195: General restriction, Random-X, Ex1, $n = 100$, and low signal.

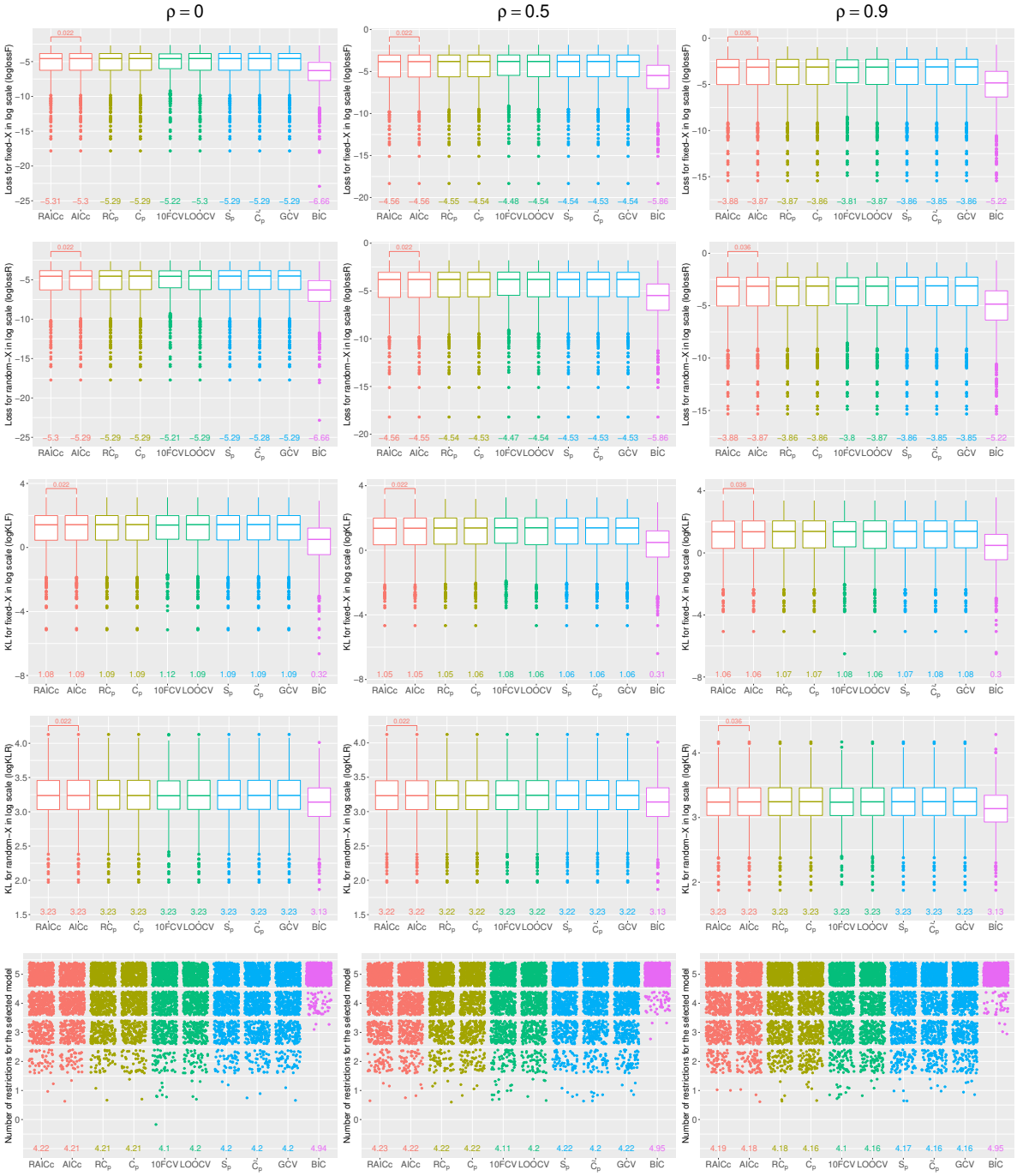

Figure S196: General restriction, Random-X, Ex1, $n = 500$, and high signal.

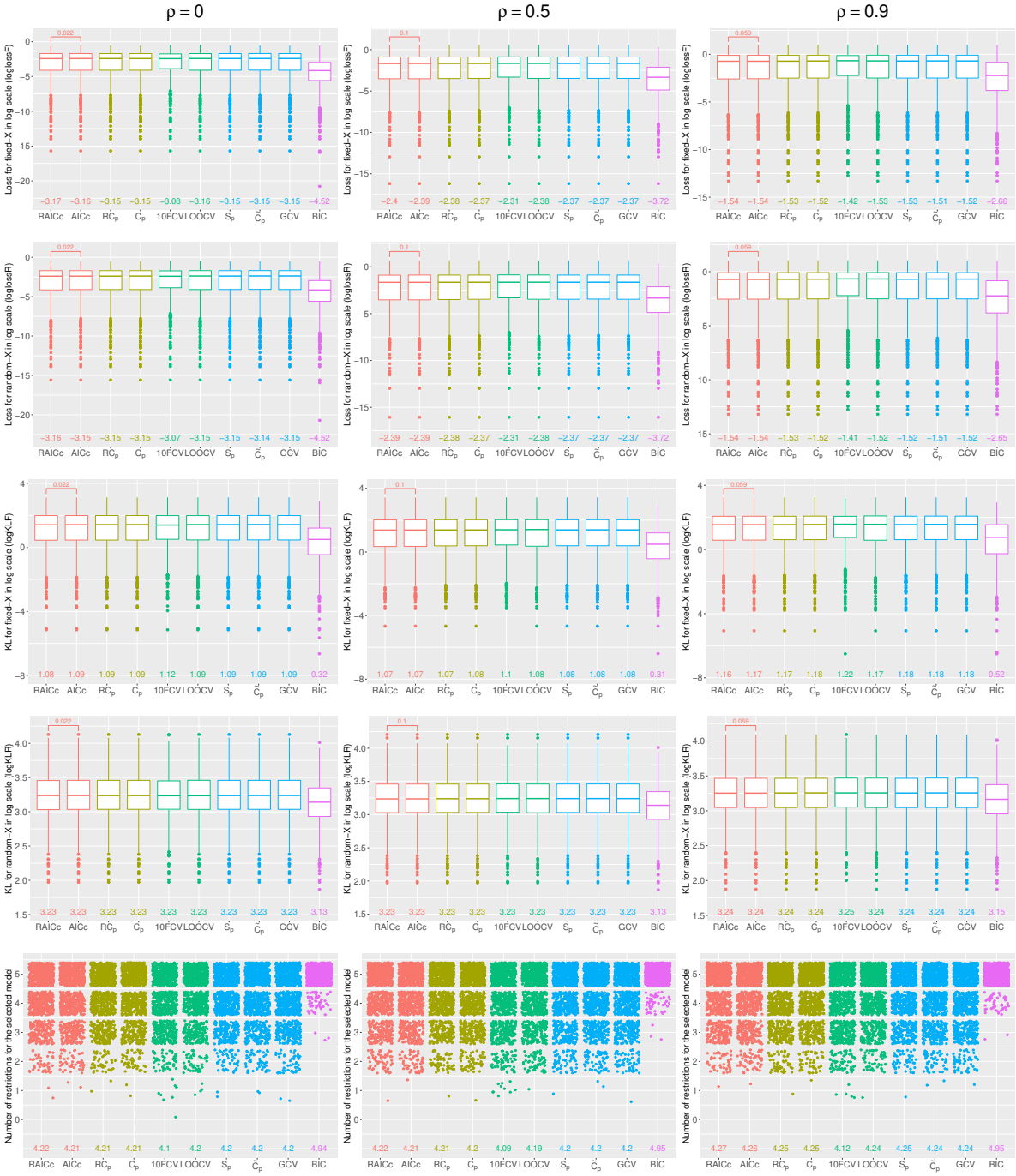

Figure S197: General restriction, Random-X, Ex1, $n = 500$, and medium signal.

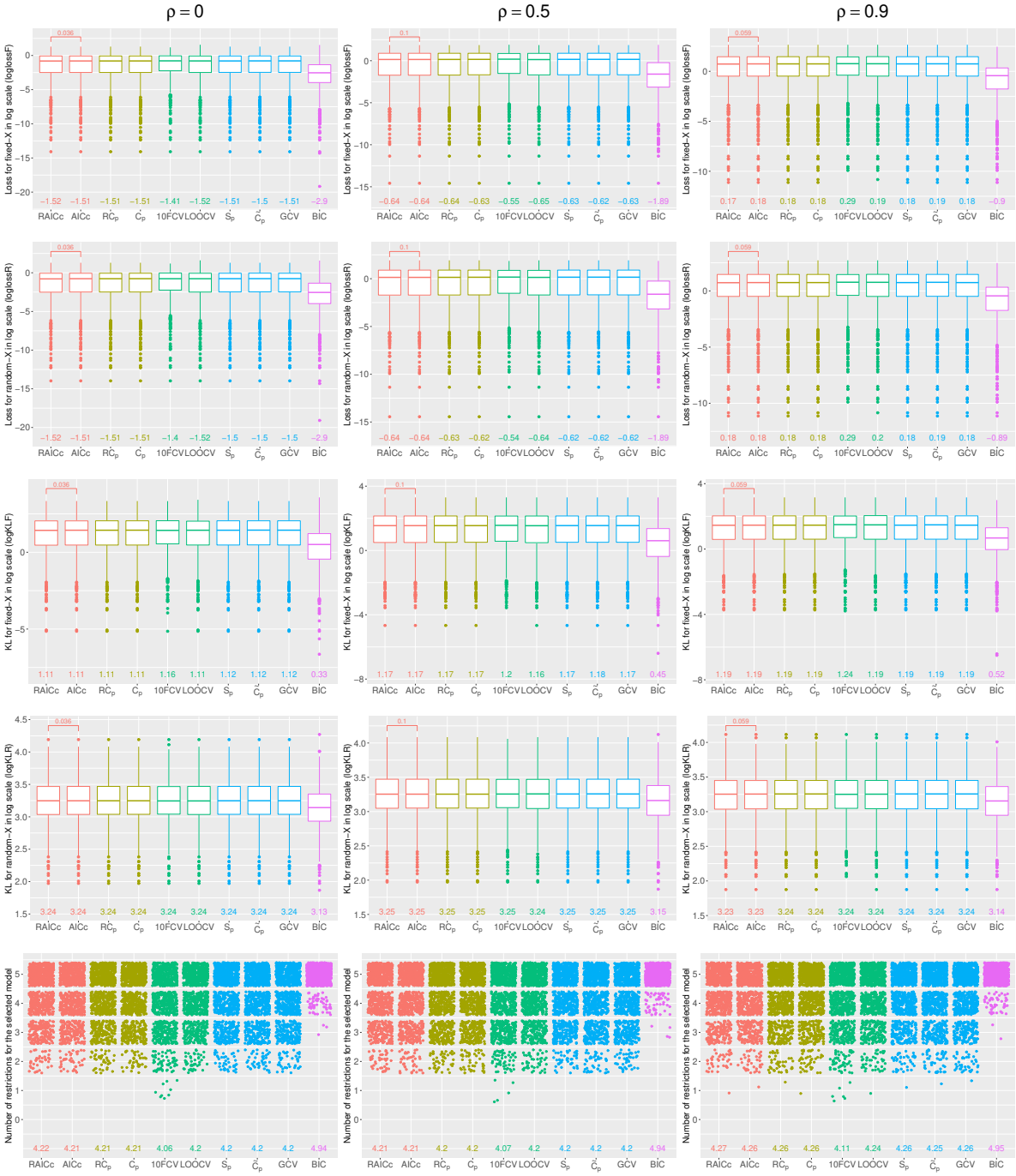

Figure S198: General restriction, Random-X, Ex1, $n = 500$, and low signal.

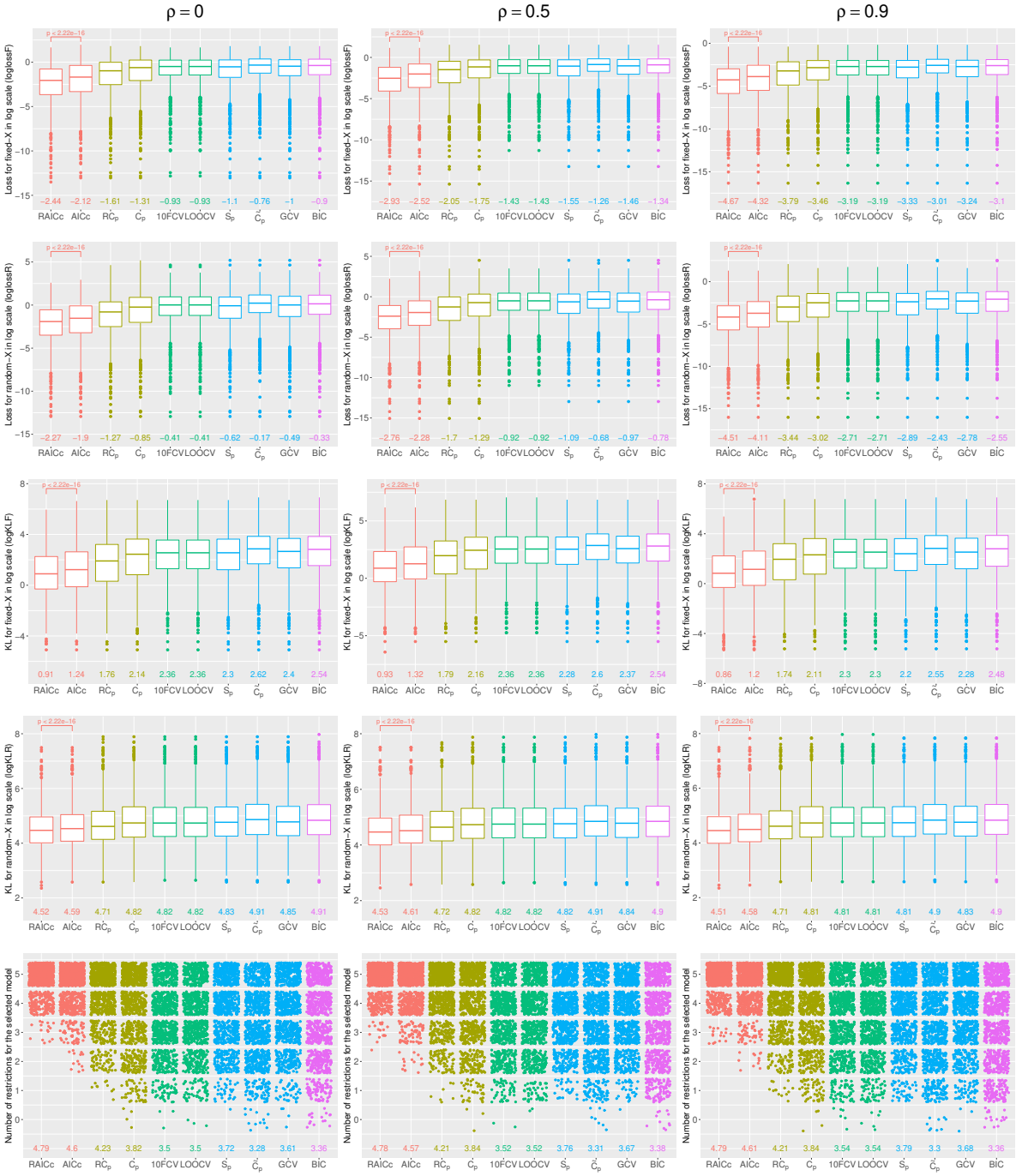

Figure S199: General restriction, Random-X, Ex2, $n = 10$, and high signal.

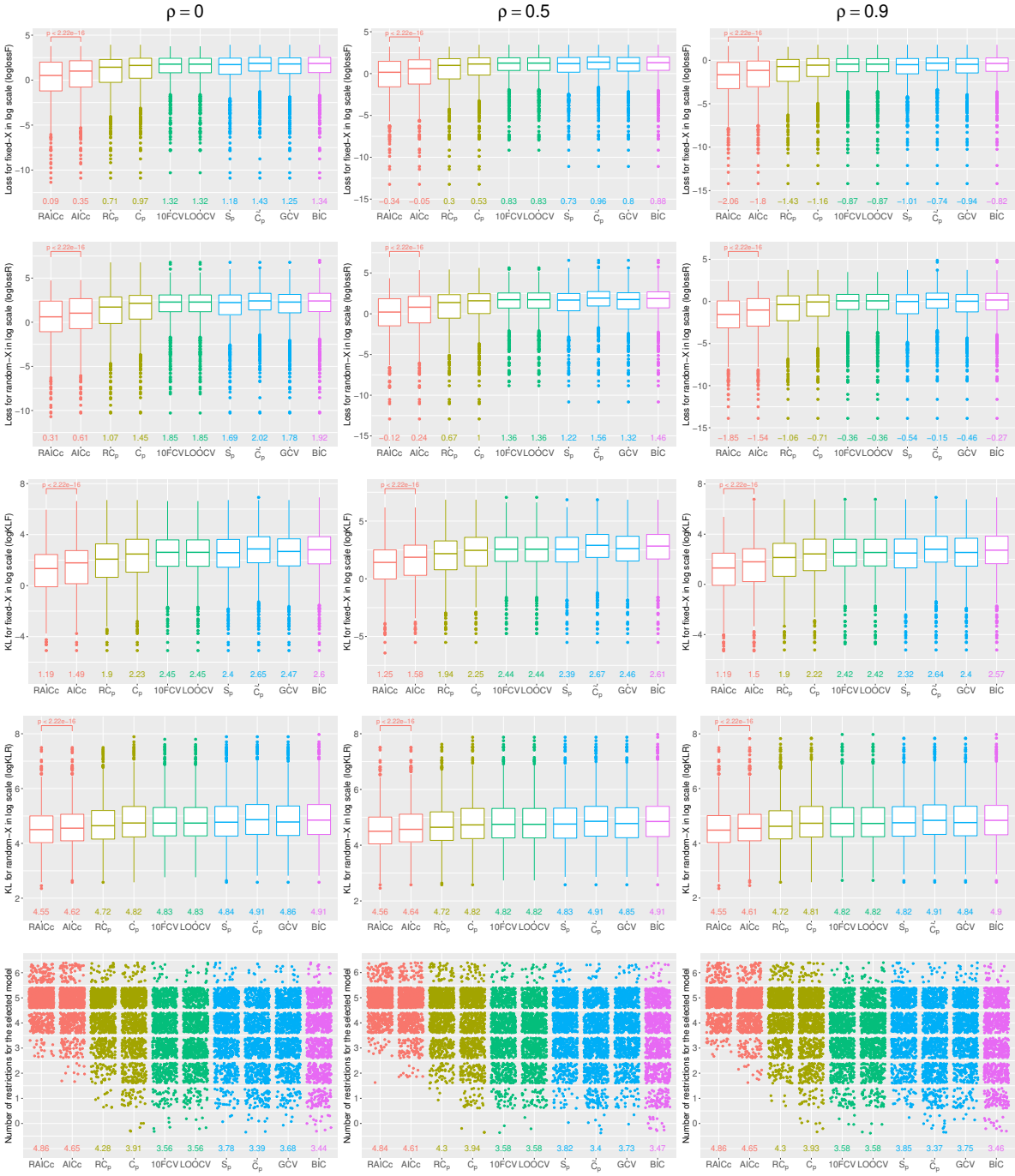

Figure S200: General restriction, Random-X, Ex2, $n = 10$, and medium signal.

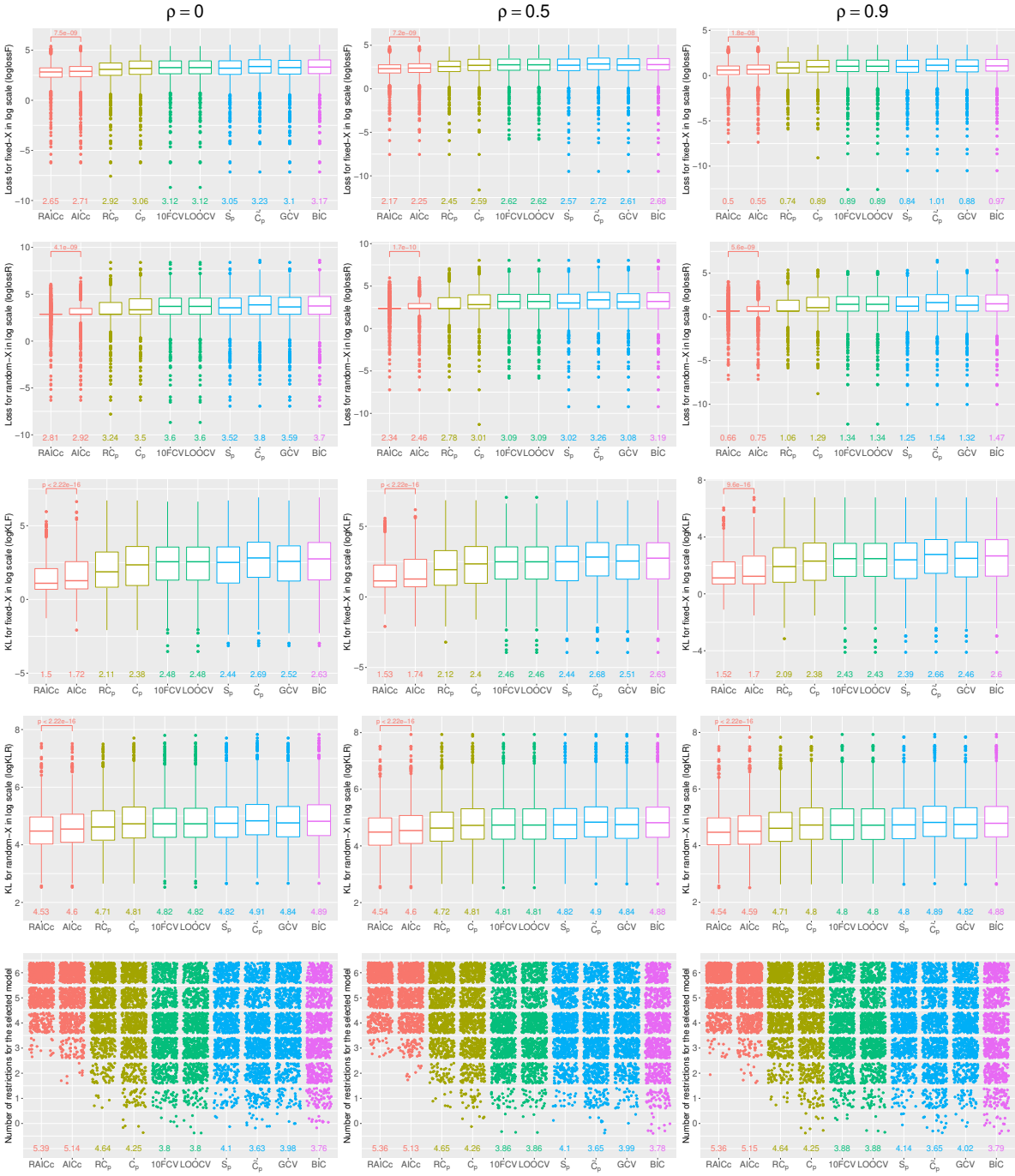

Figure S201: General restriction, Random-X, Ex2, $n = 10$, and low signal.

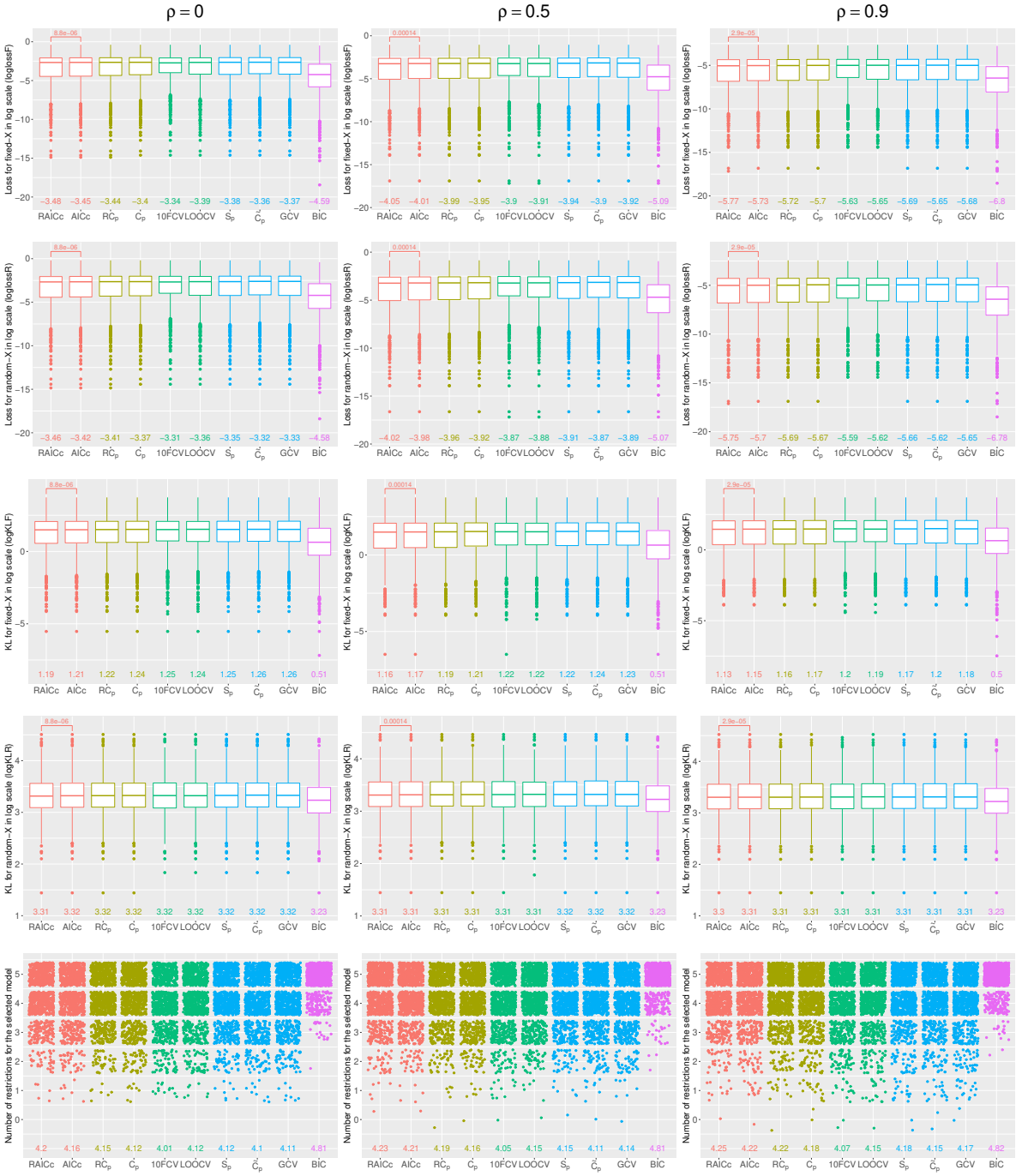

Figure S202: General restriction, Random-X, Ex2, $n = 100$, and high signal.

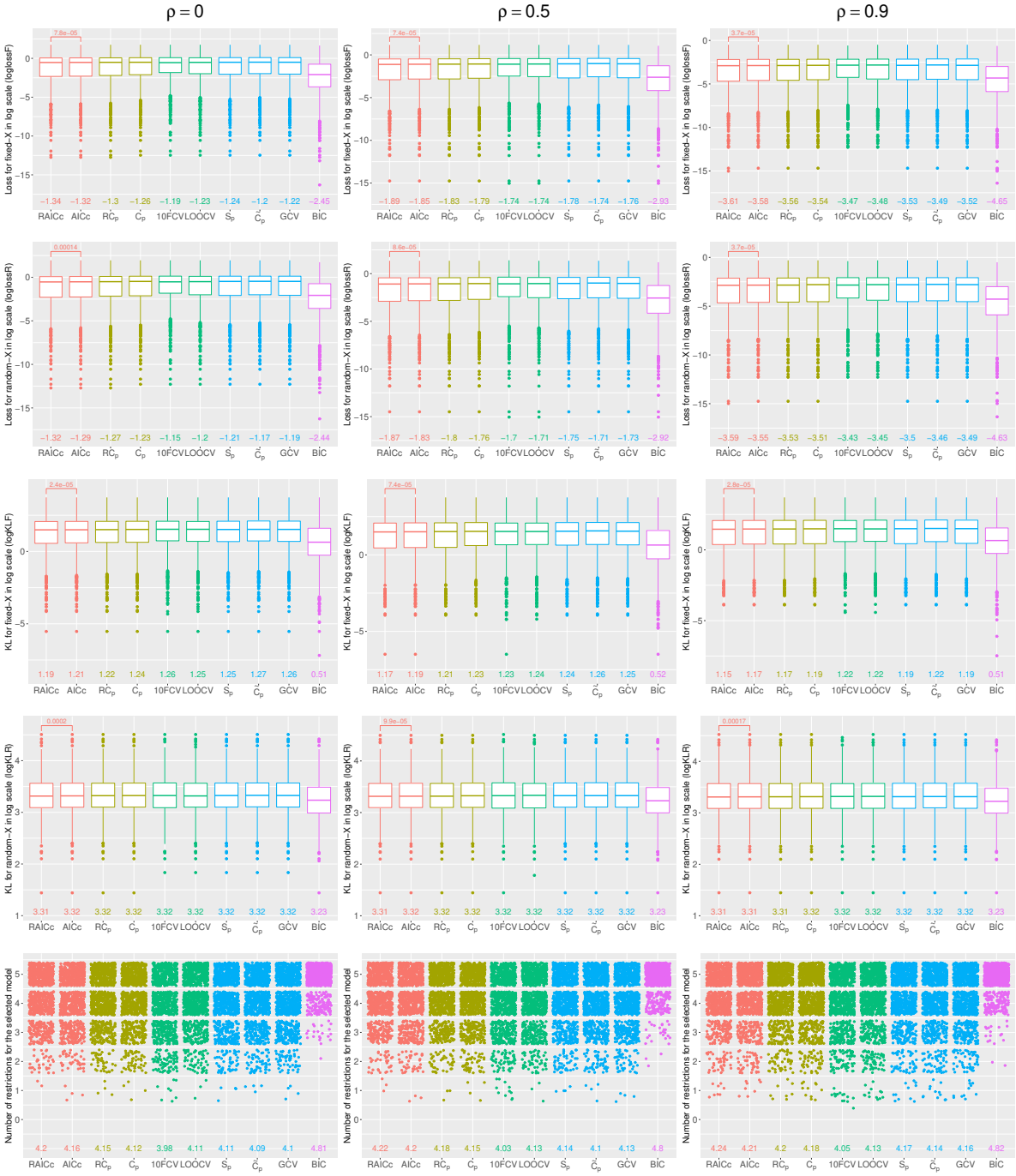

Figure S203: General restriction, Random-X, Ex2, $n = 100$, and medium signal.

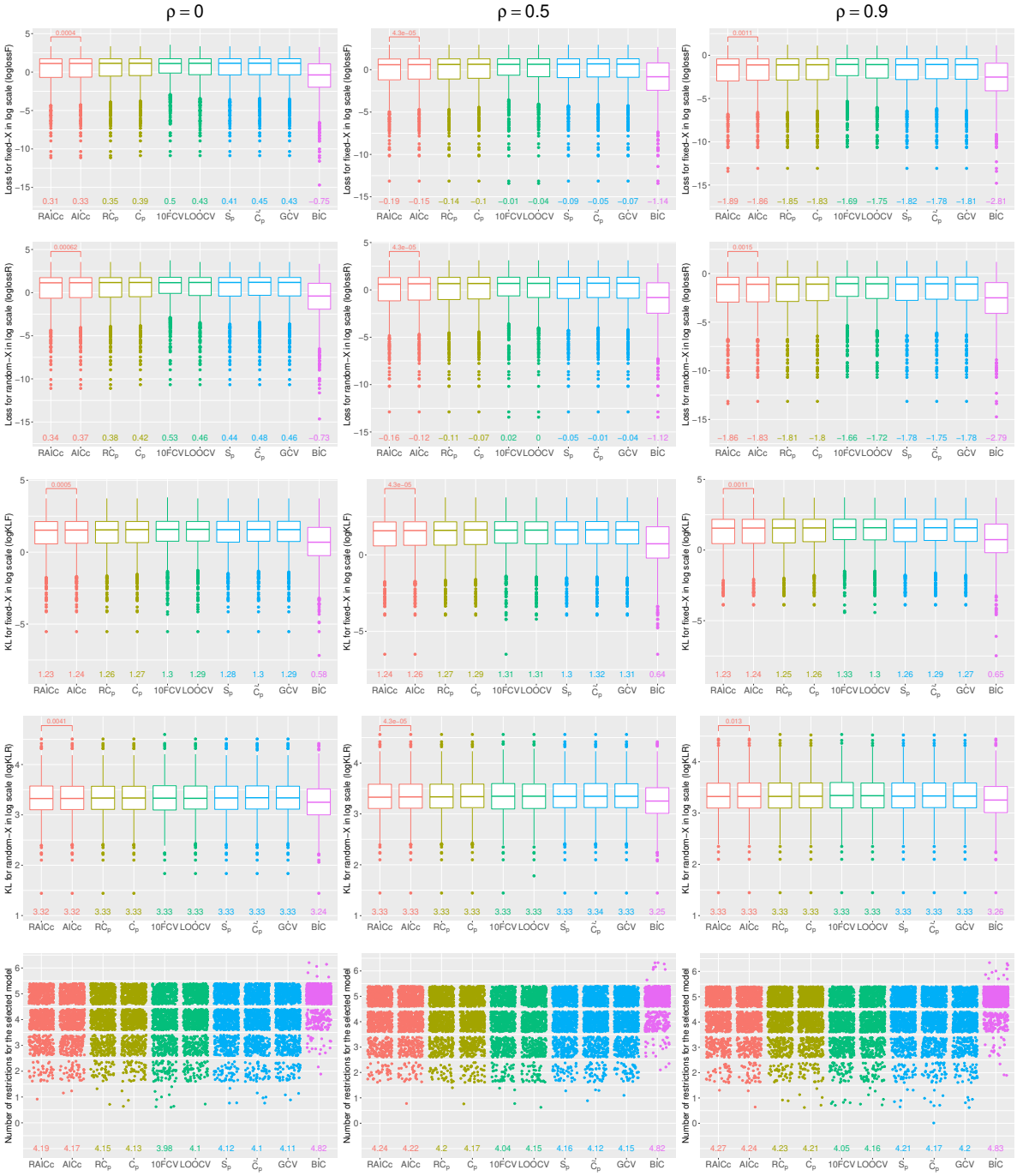

Figure S204: General restriction, Random-X, Ex2, $n = 100$, and low signal.

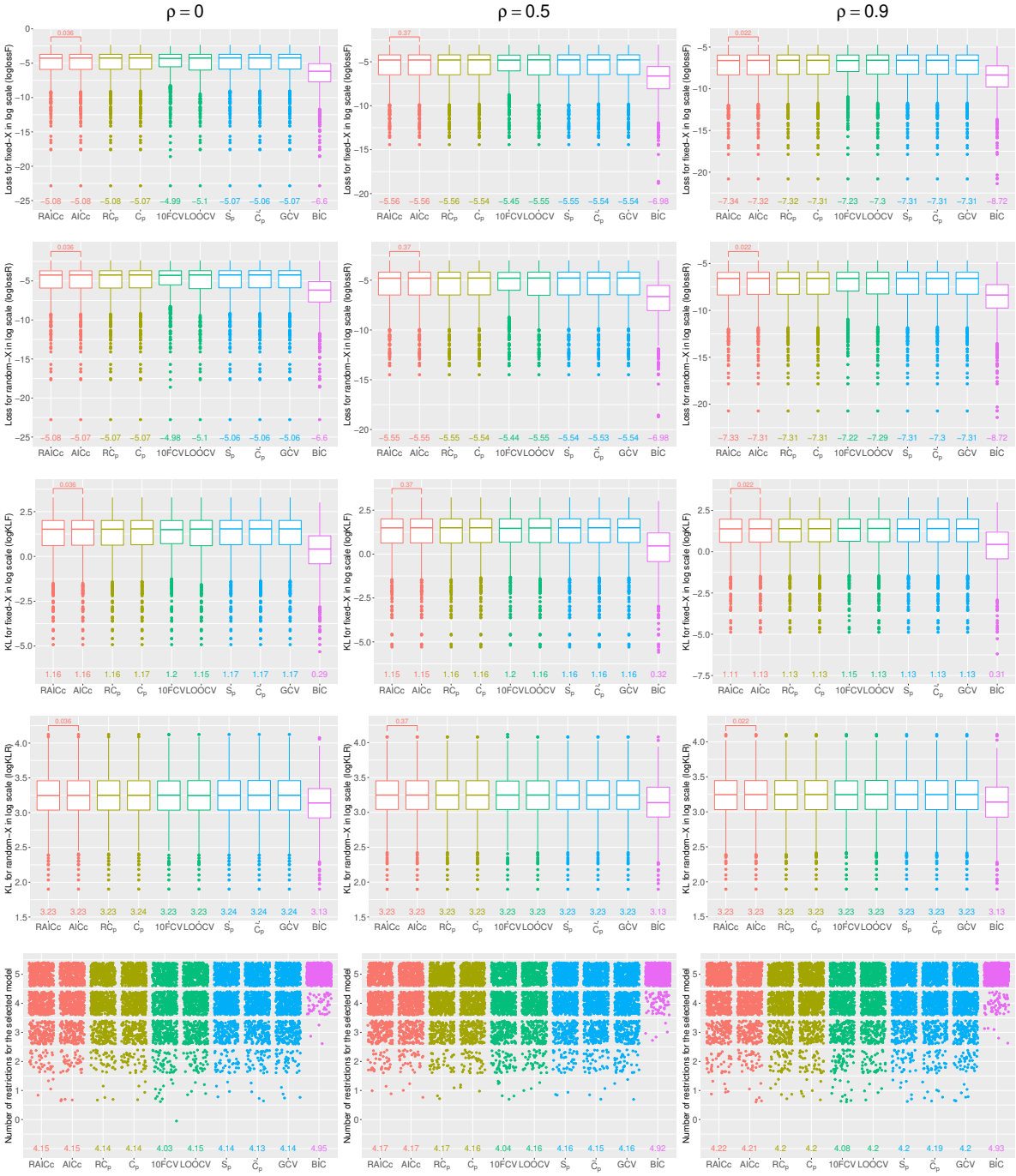

Figure S205: General restriction, Random-X, Ex2, $n = 500$, and high signal.

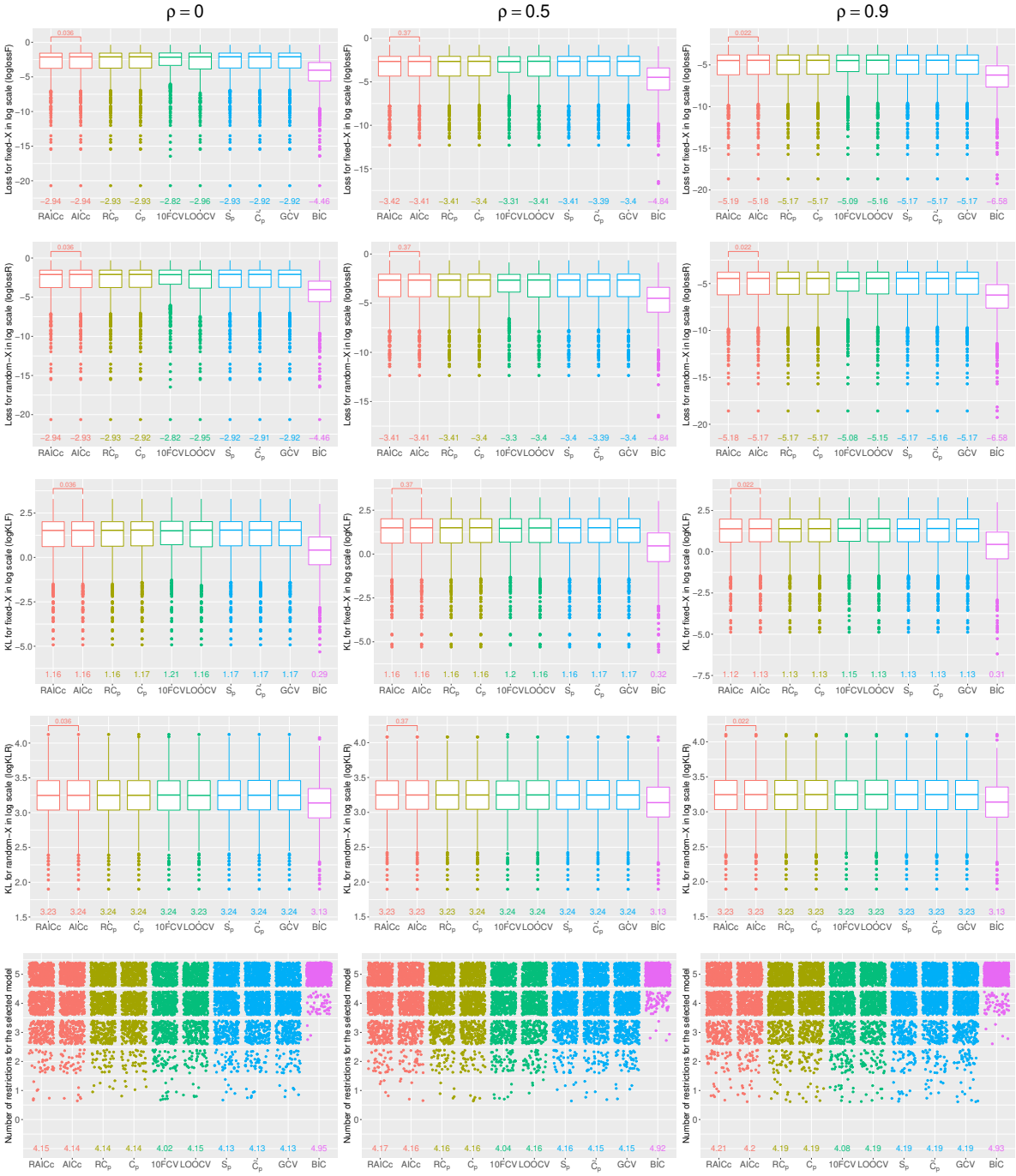

Figure S206: General restriction, Random-X, Ex2, $n = 500$, and medium signal.

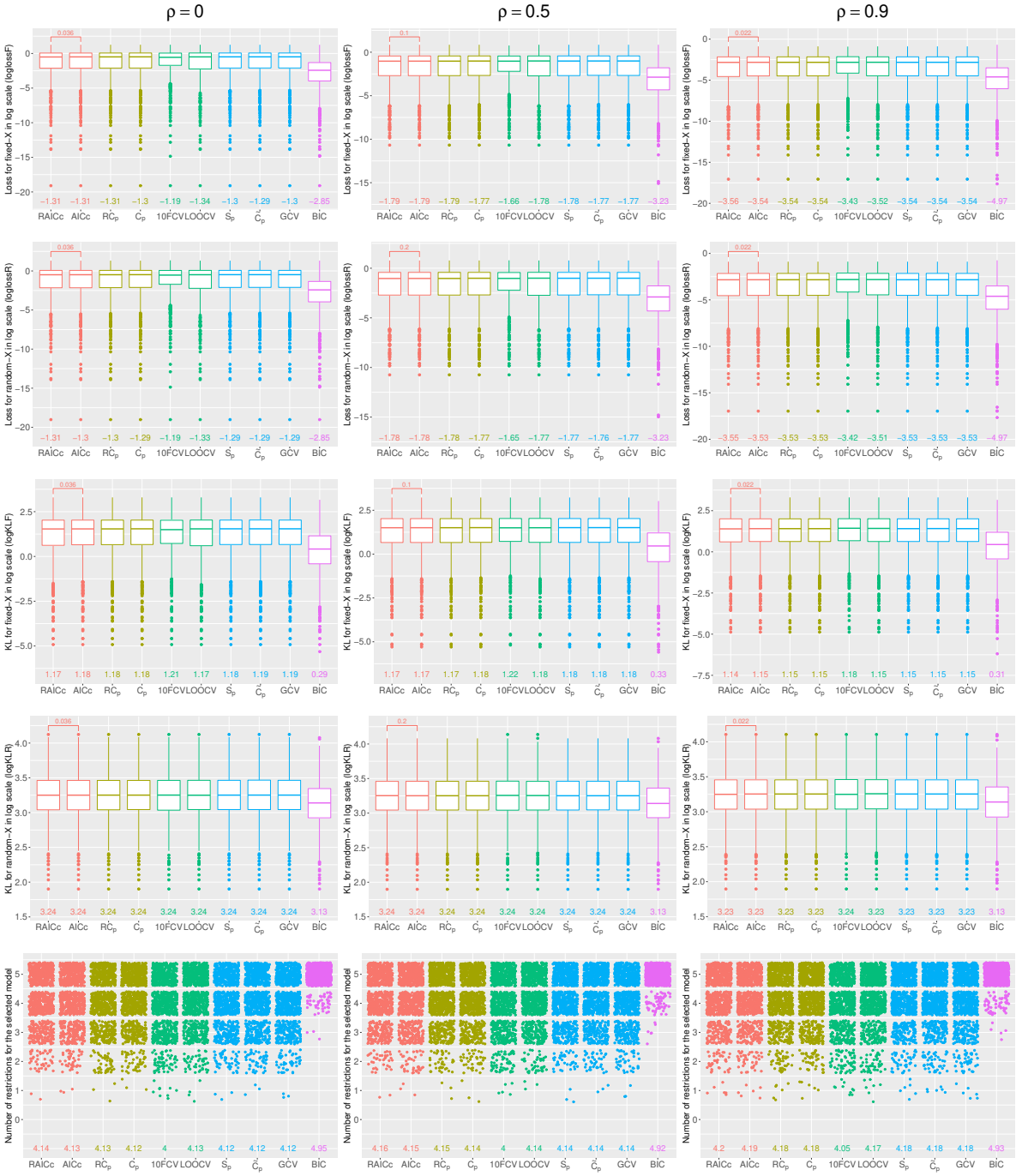

Figure S207: General restriction, Random-X, Ex2, $n = 500$, and low signal.

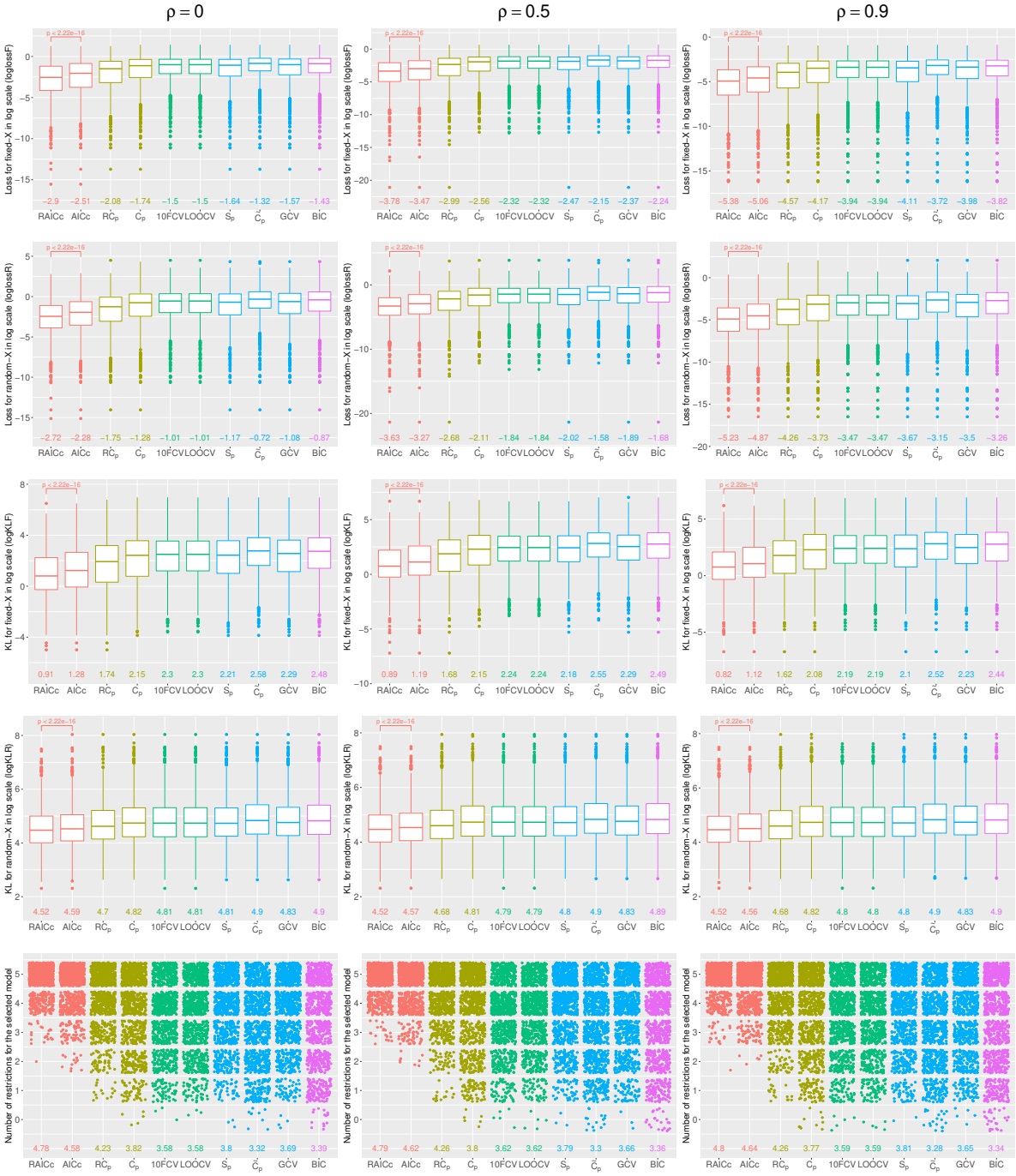

Figure S208: General restriction, Random-X, Ex3, $n = 10$, and high signal.

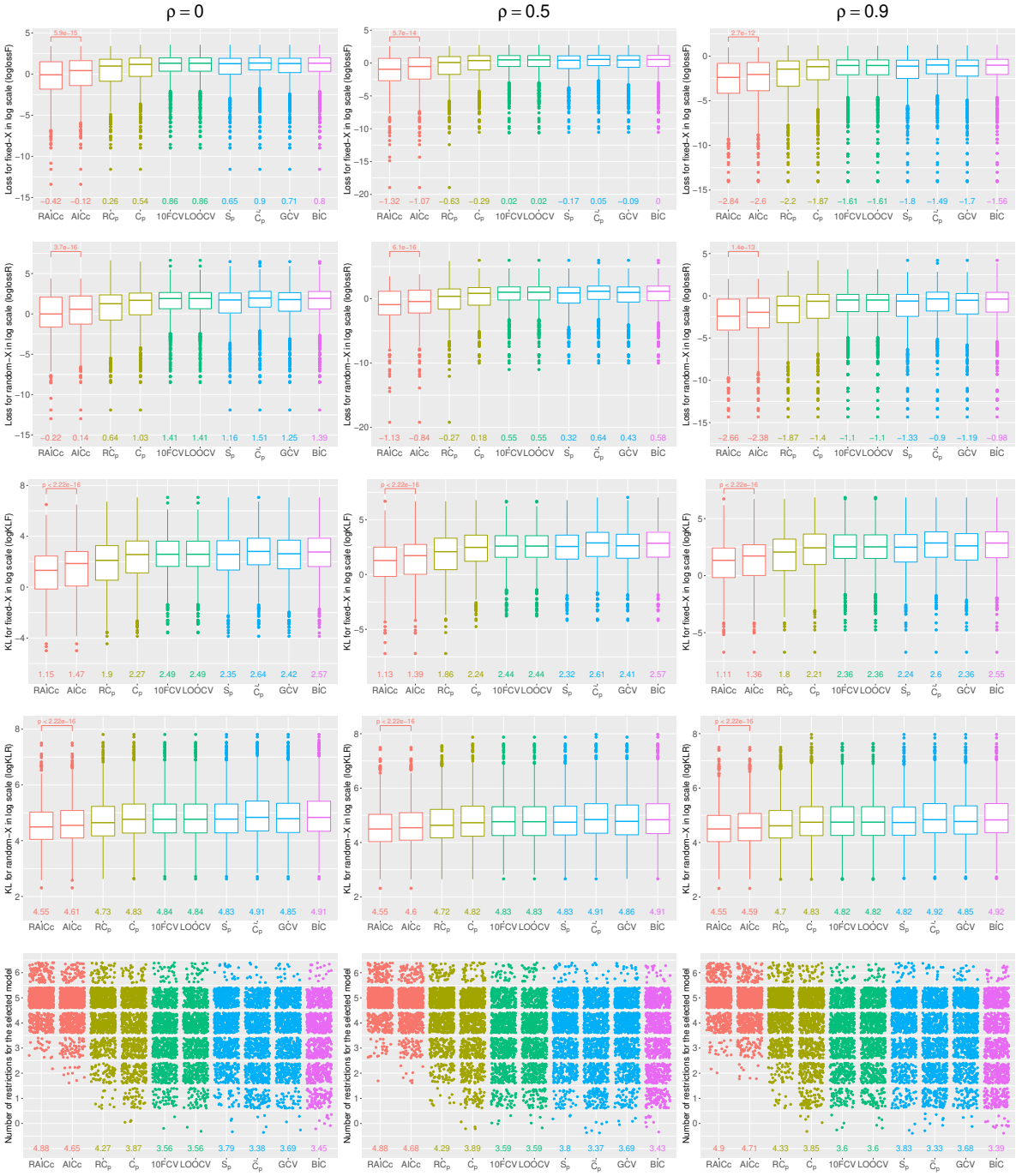

Figure S209: General restriction, Random-X, Ex3, $n = 10$, and medium signal.

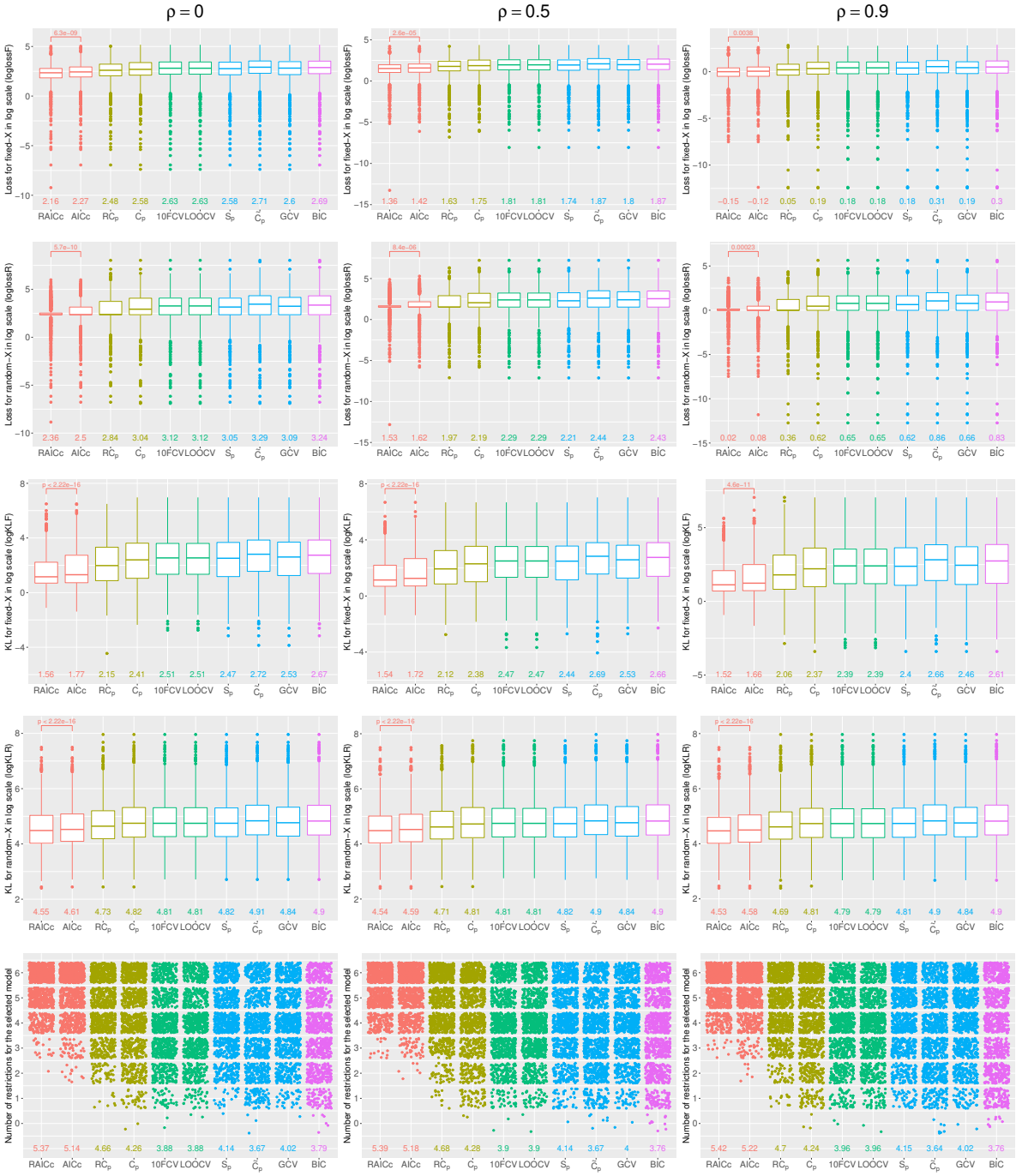

Figure S210: General restriction, Random-X, Ex3, $n = 10$, and low signal.

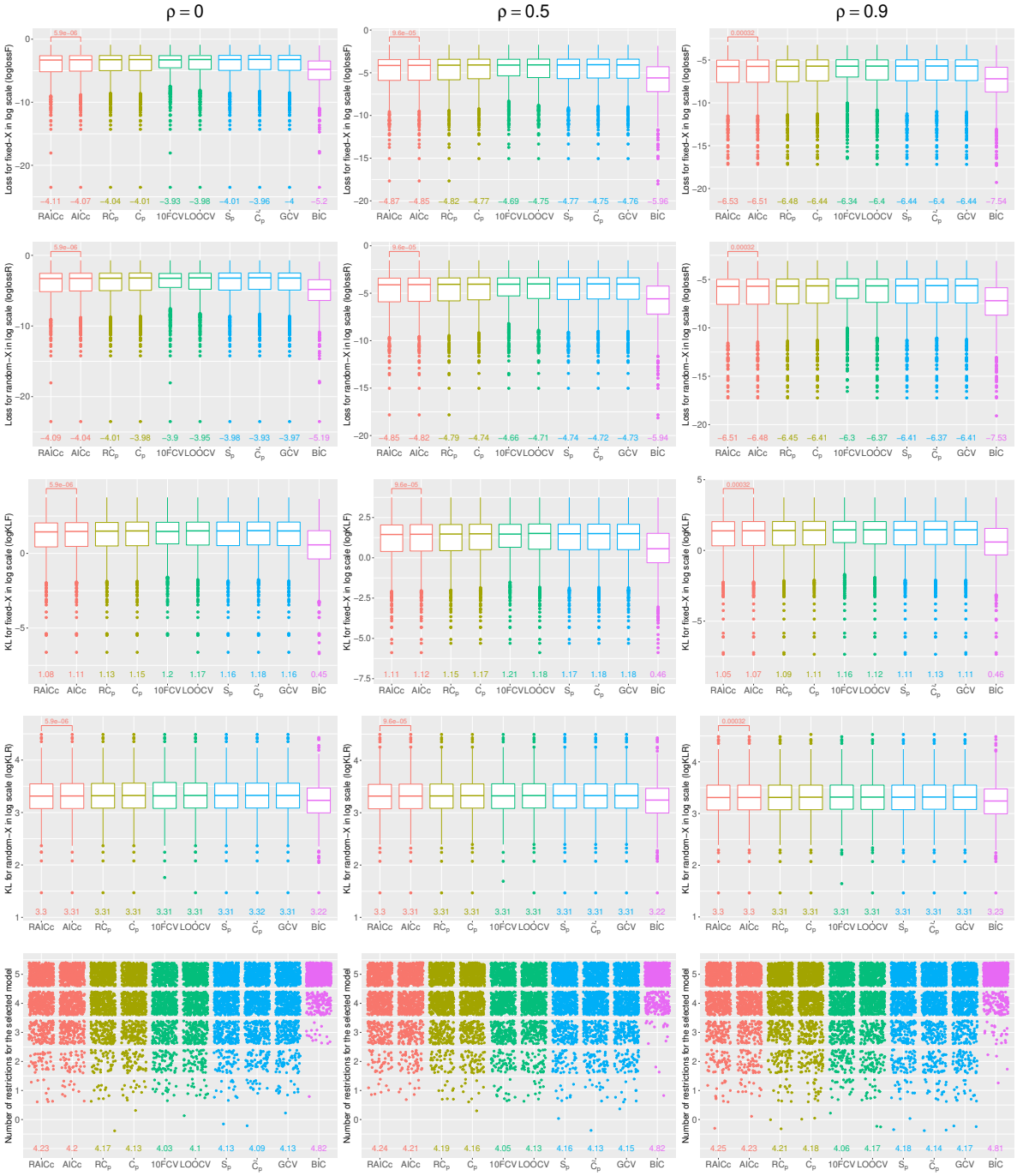

Figure S211: General restriction, Random-X, Ex3, $n = 100$, and high signal.

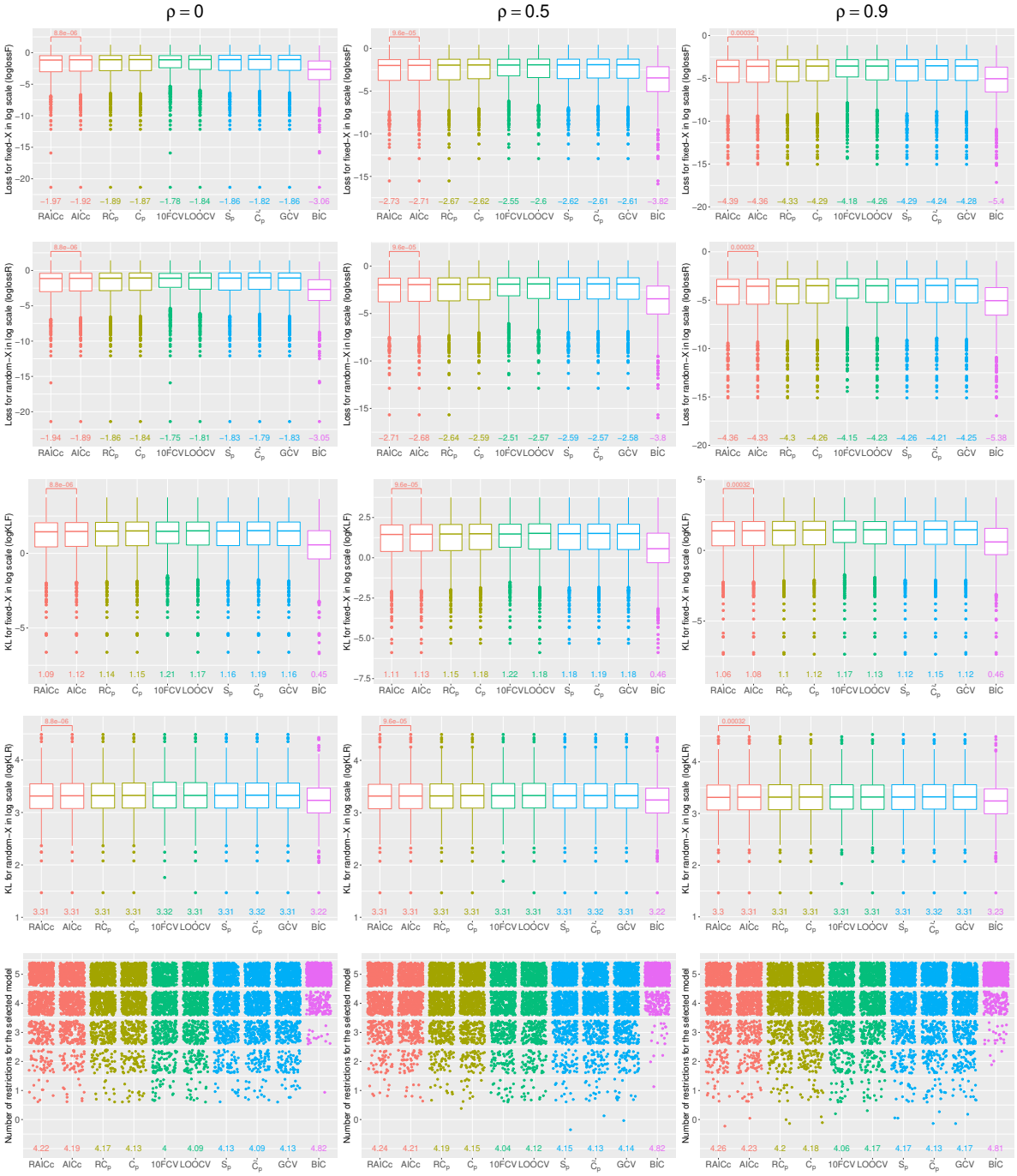

Figure S212: General restriction, Random-X, Ex3, $n = 100$, and medium signal.

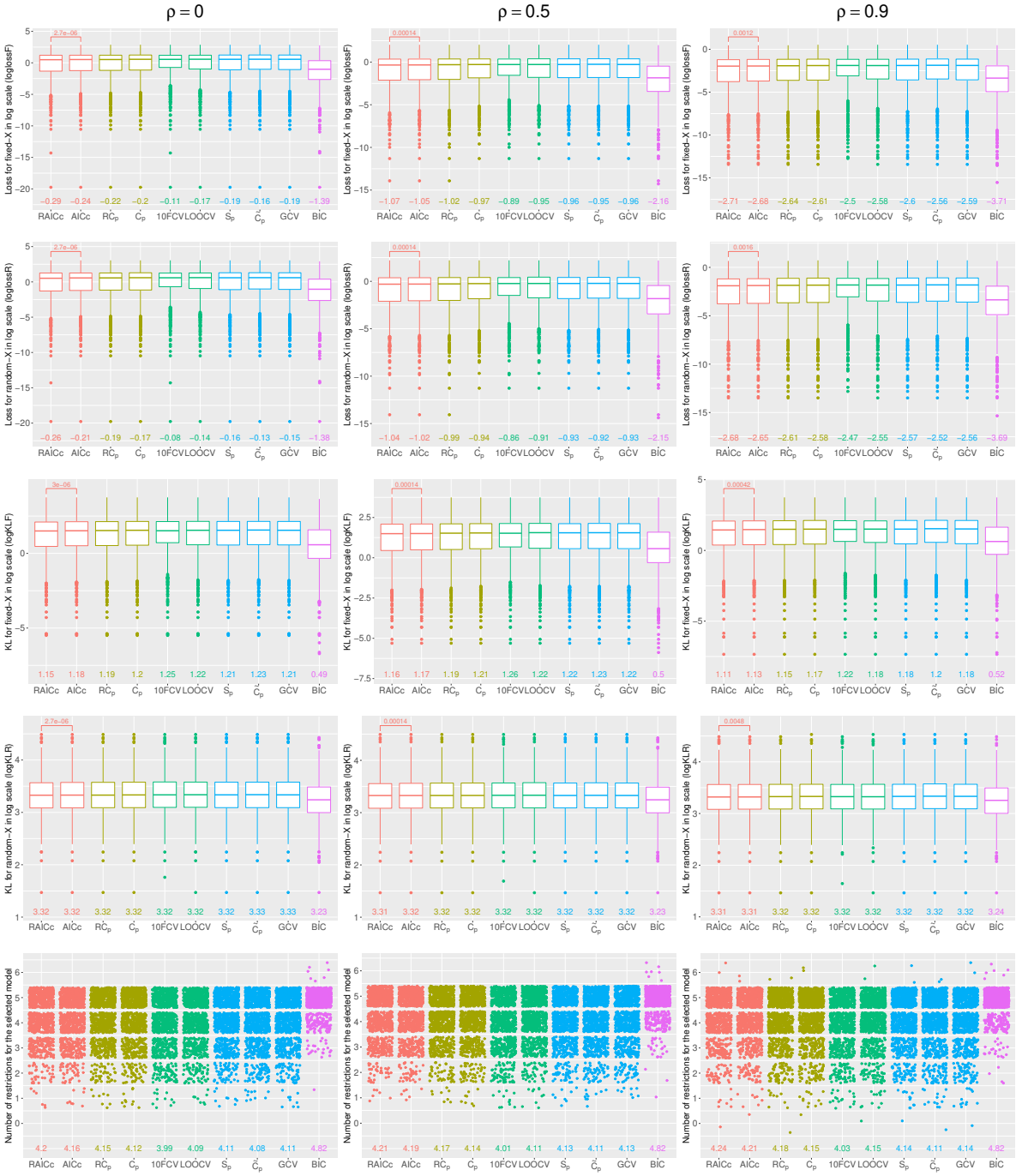

Figure S213: General restriction, Random-X, Ex3, $n = 100$, and low signal.

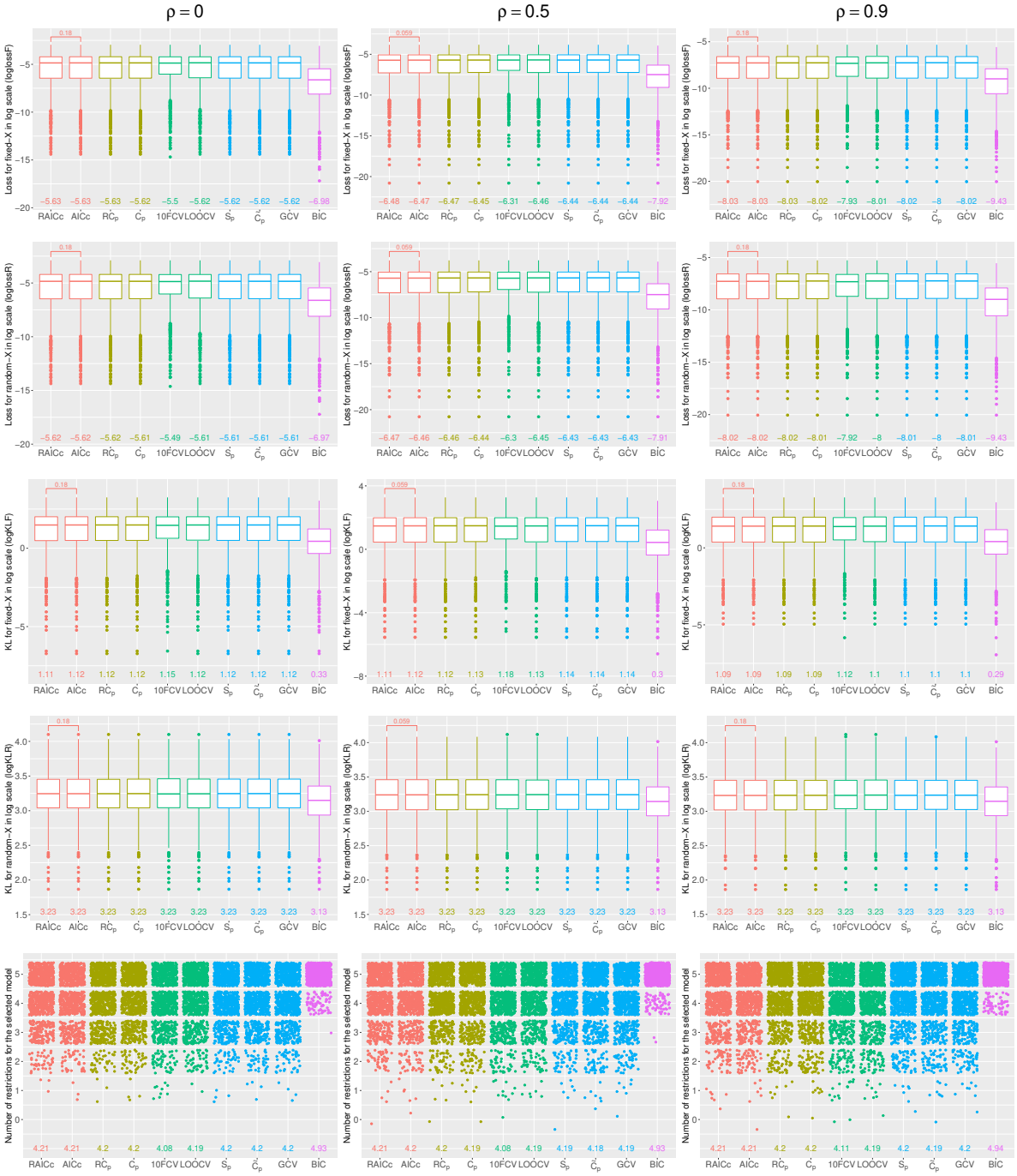

Figure S214: General restriction, Random-X, Ex3, $n = 500$, and high signal.

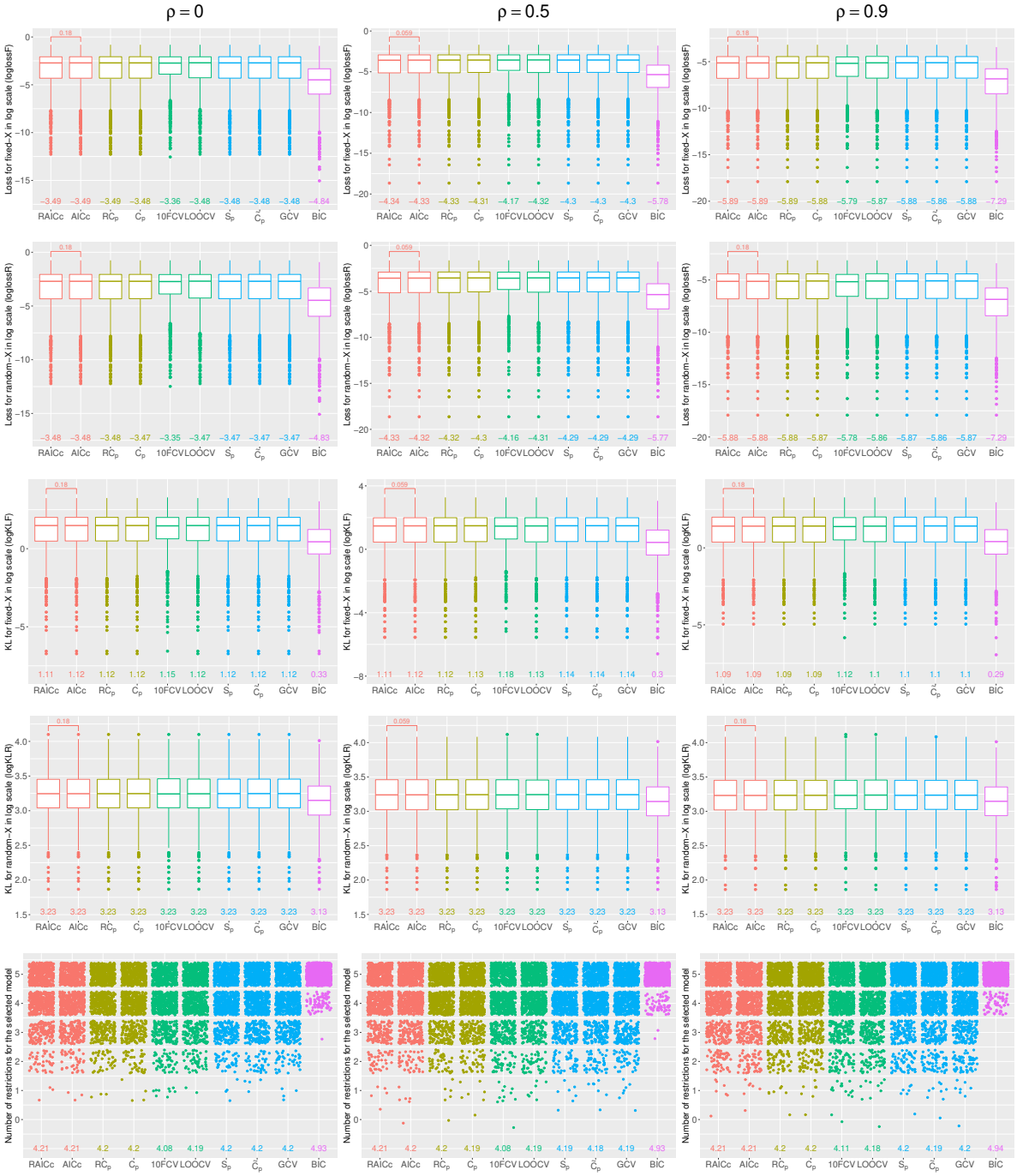

Figure S215: General restriction, Random-X, Ex3, $n = 500$, and medium signal.

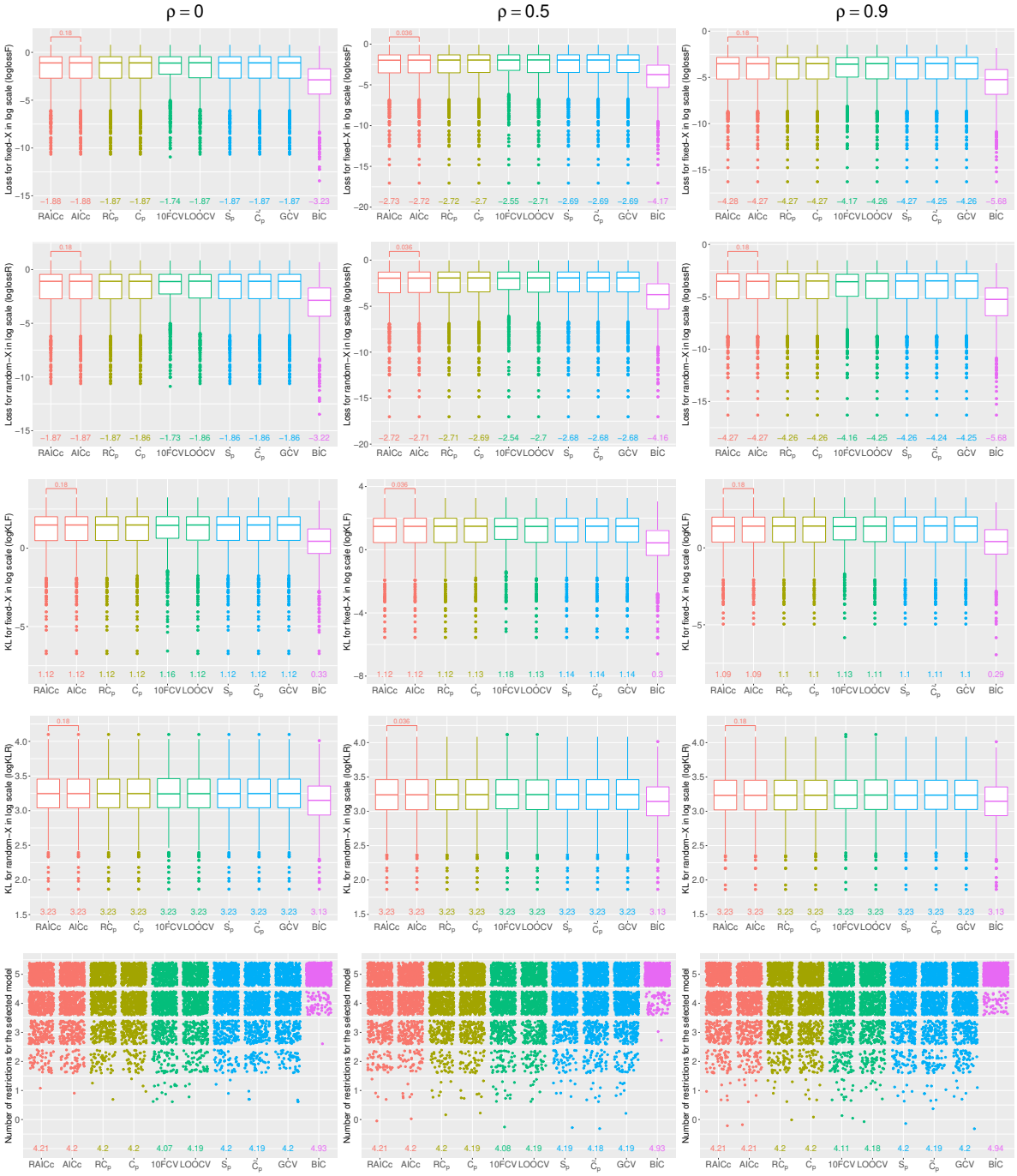

Figure S216: General restriction, Random-X, Ex3, $n = 500$, and low signal.