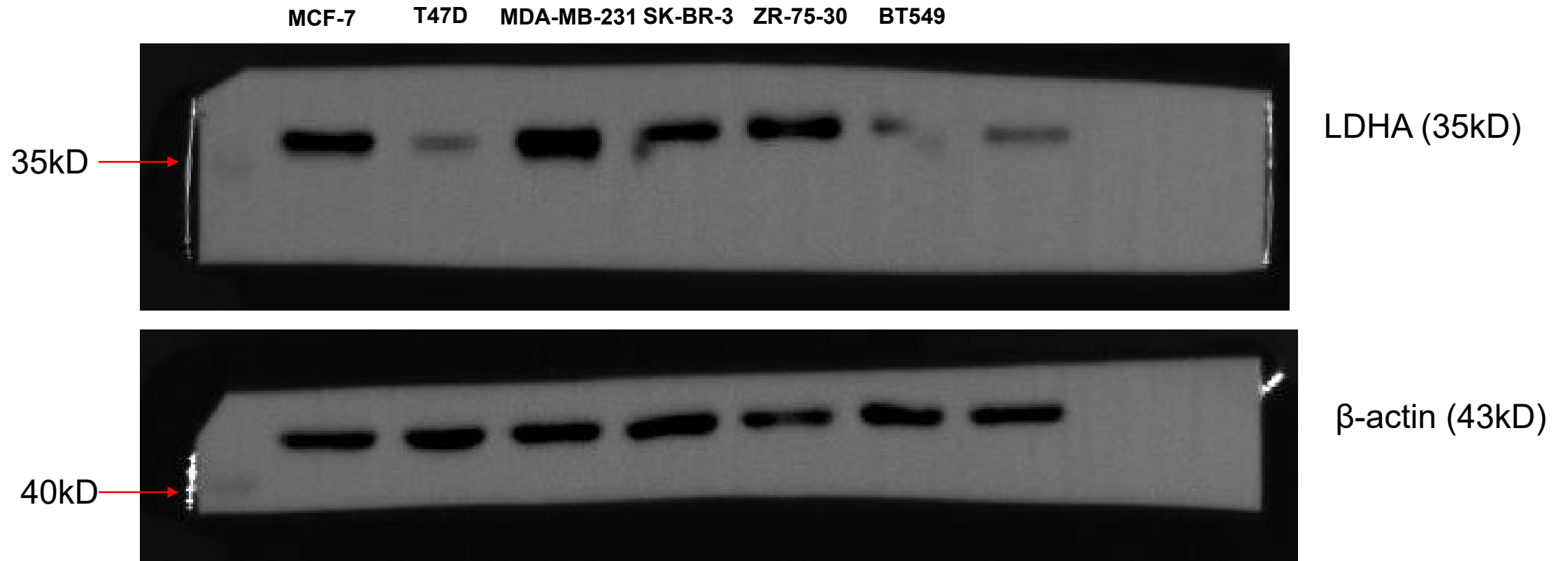
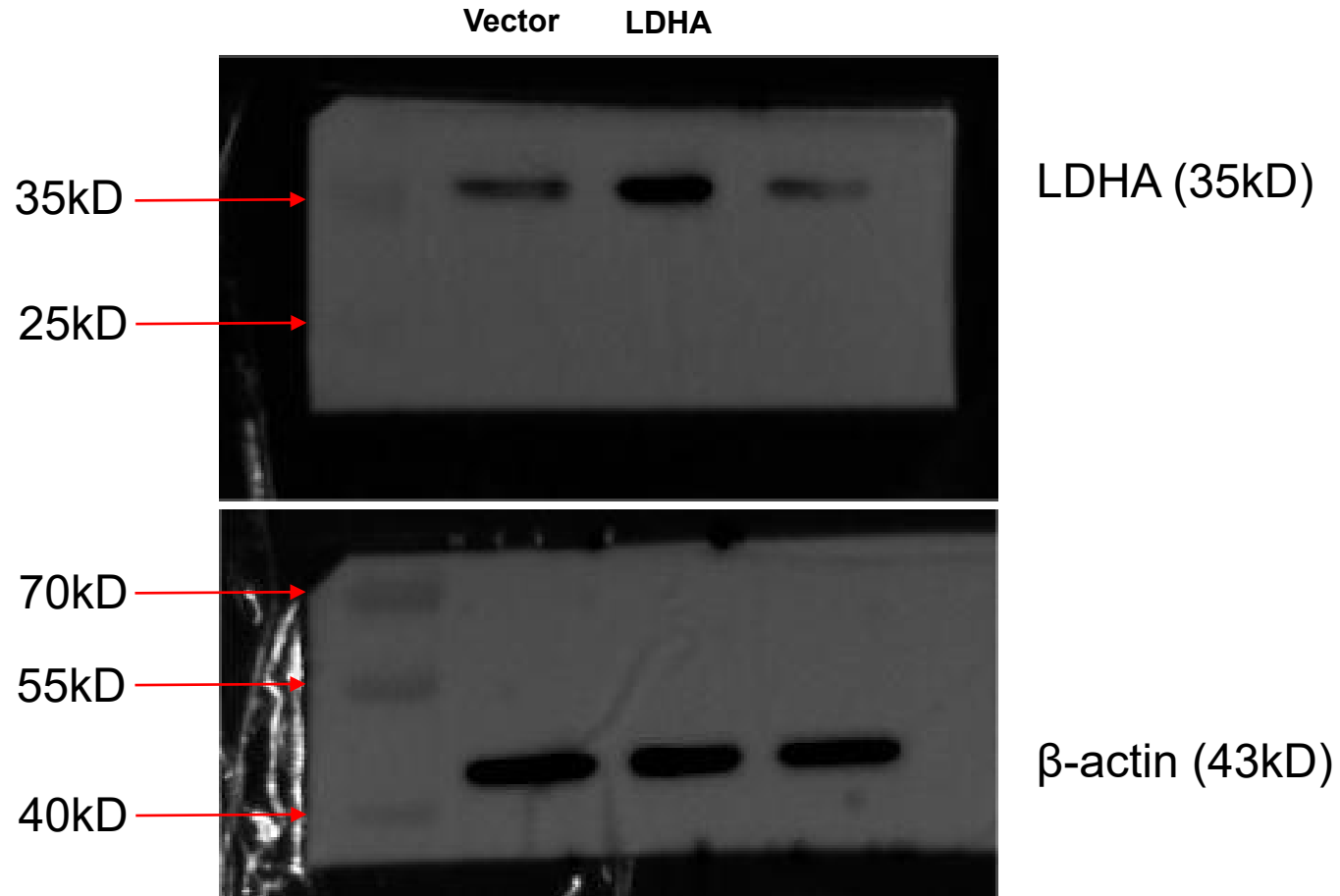


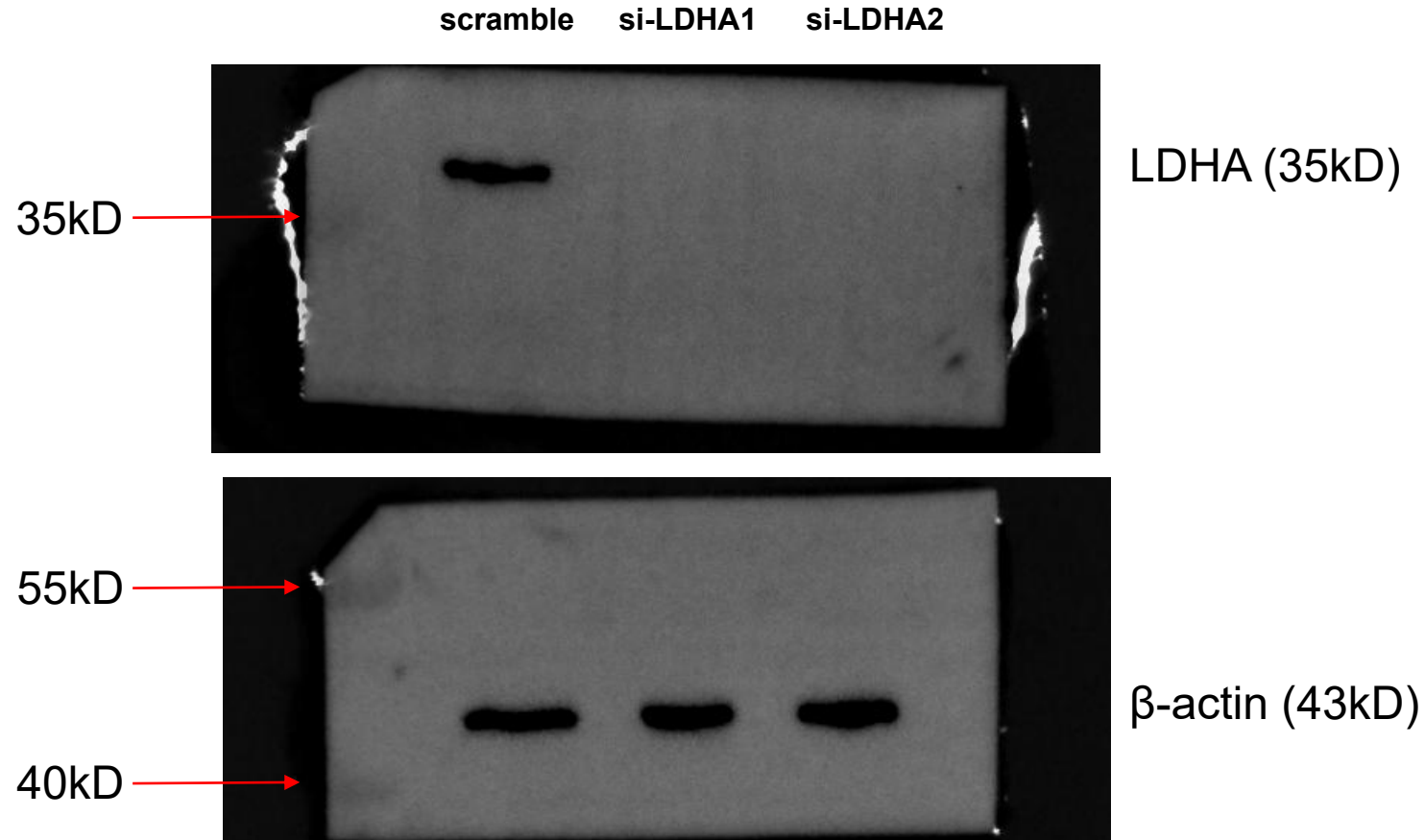
Supplementary Figure 1: Western blot analysis of LDHA in six different breast cancer (BC) cell lines. From left to right, the sequence is molecular weight marker, MCF-7, T47D, MDA-MB-231, SK-BR-3, ZR-75-30, BT549. The top band, LDHA (35kD), is the protein of interest; the bottom band, β -actin (43kD), is the control or housekeeping marker.



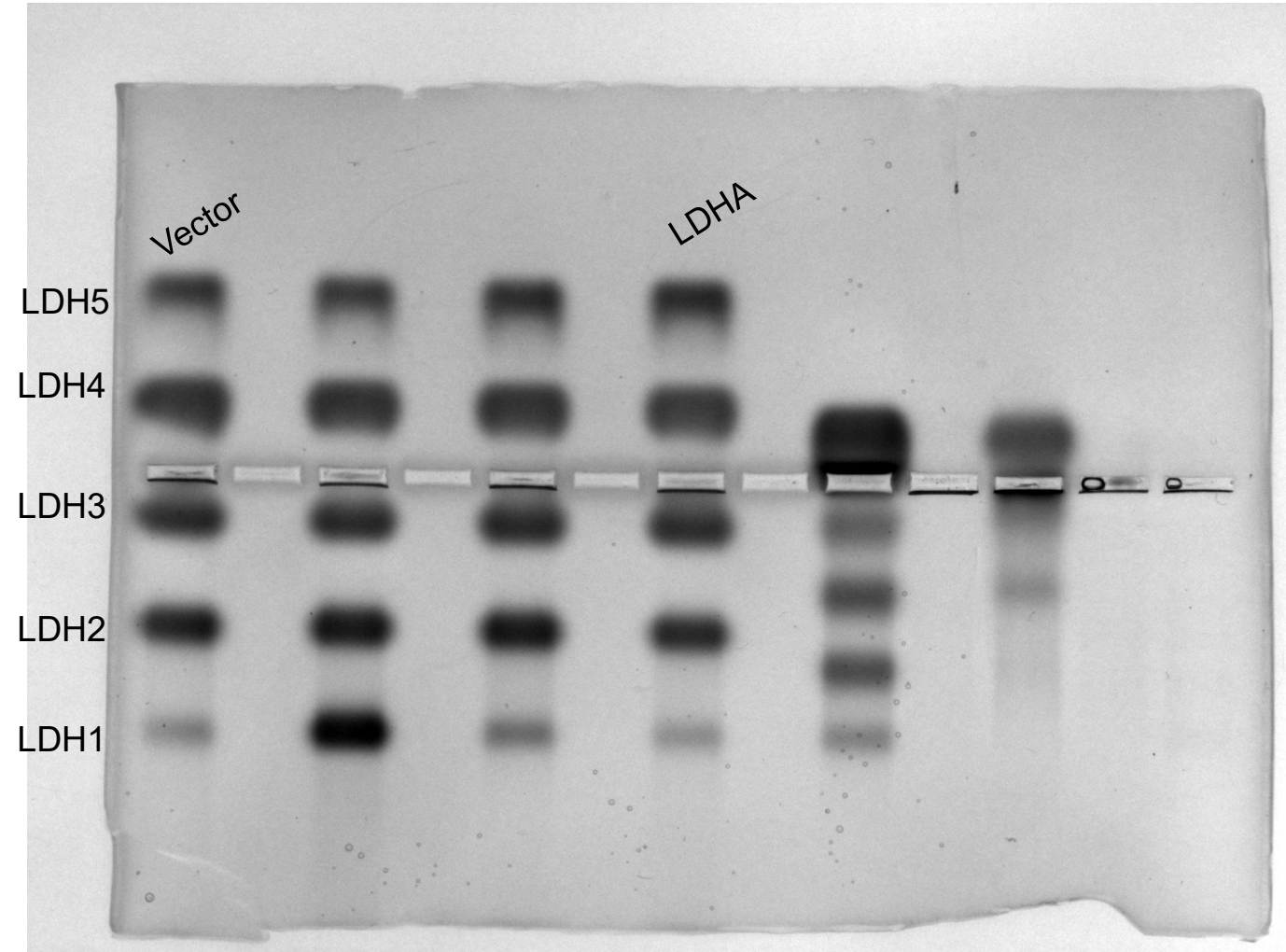
Supplementary Figure 2: Western blot analysis of the expression of LDHA in BT549 cells transfected with LDHA-expressing plasmid. From left to right, the sequence is molecular weight marker, BT549-Vector, BT549-LDHA. The top band, LDHA (35kD), is the protein of interest; the bottom band, β -actin (43kD), is the control or housekeeping marker.



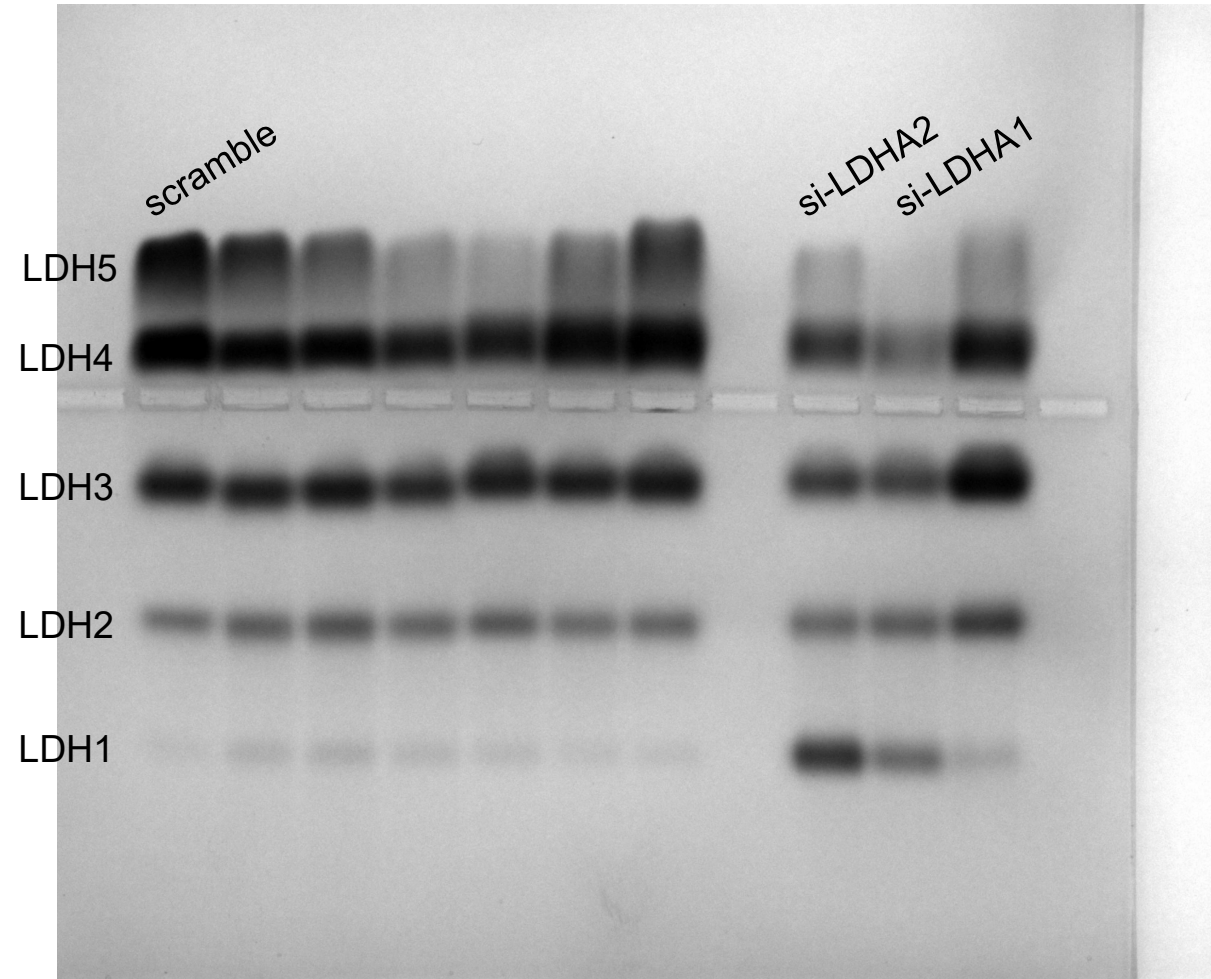
Supplementary Figure 3: Western blot analysis of the expression of LDHA in BT549 cells transfected with siRNA. From left to right, the sequence is molecular weight marker, BT549-scramble, BT549-siLDHA1, BT549-siLDHA2. The top band, LDHA (35kD), is the protein of interest; the bottom band, β -actin (43kD), is the control or housekeeping marker.



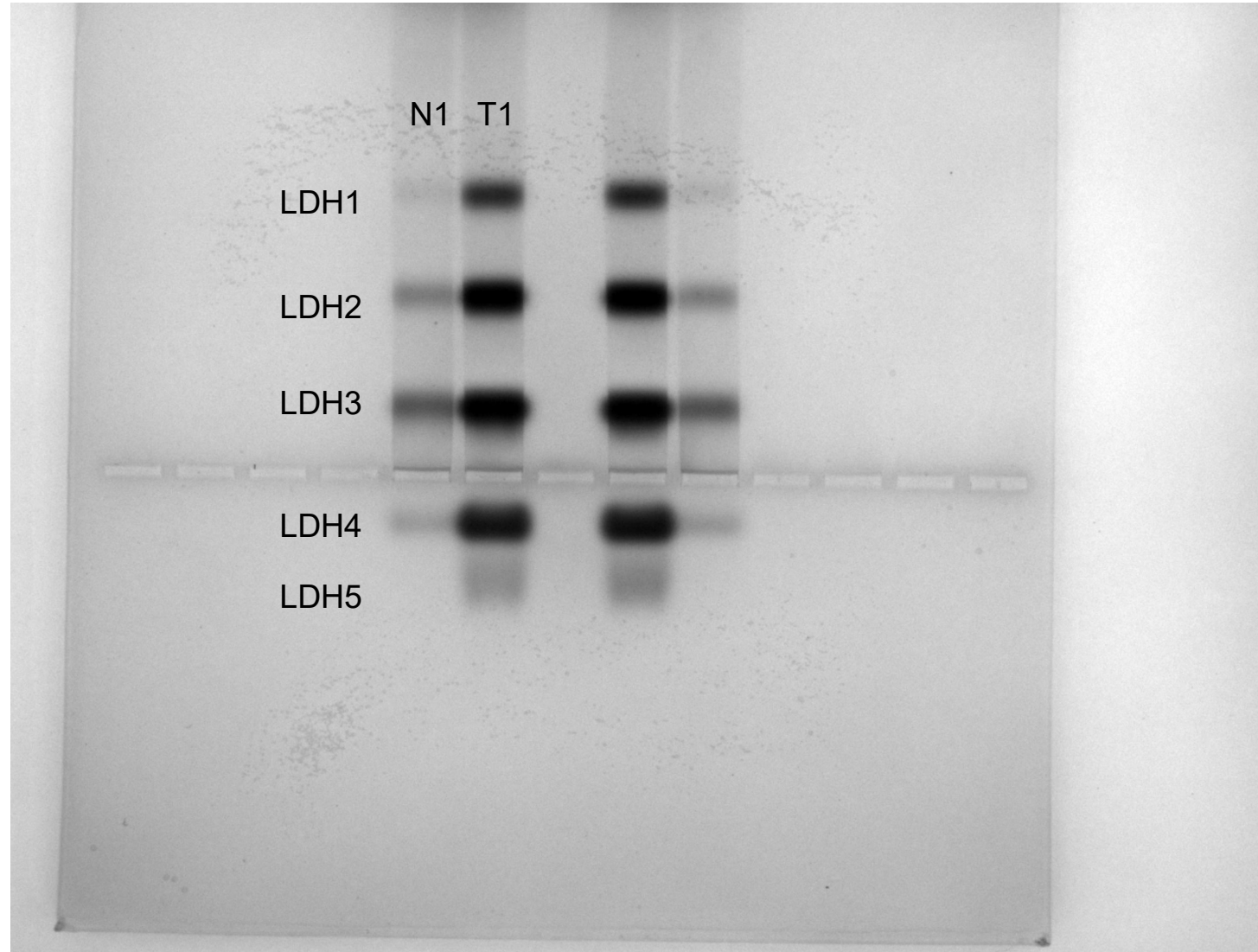
Supplementary Figure 4: Agarose gel electrophoresis assay of BT549 cells transfected with LDHA-expressing plasmid. From left to right, the sequence is LDH isoenzyme bands, BT549-Vector (1st from left), BT549-LDHA (4th from left).



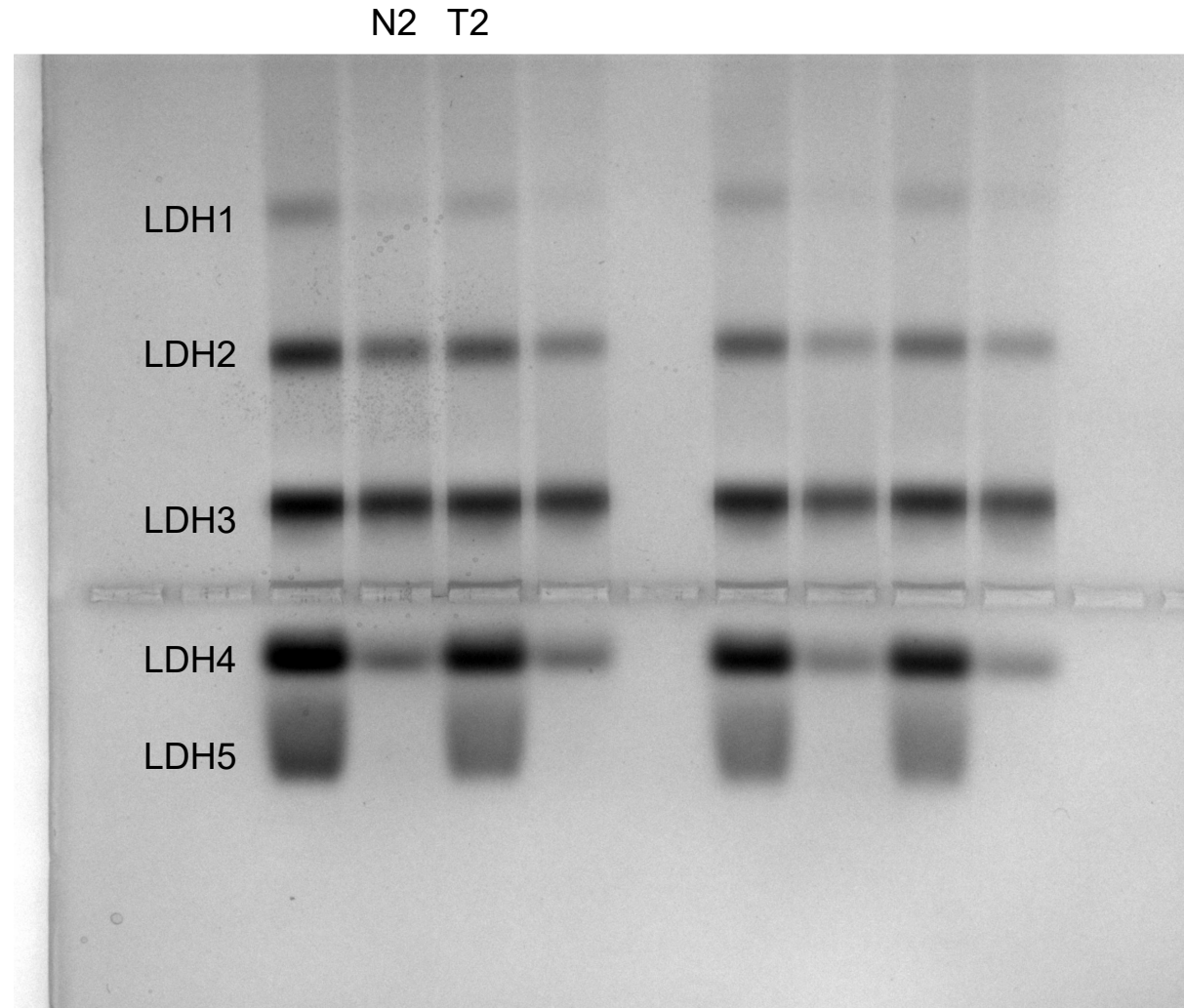
Supplementary Figure 5: Agarose gel electrophoresis assay of BT549 cells transfected with siRNAs. From left to right, the sequence is LDH isoenzyme bands, BT549-scramble (1st from left), BT549-siLDHA2 (3rd from right), BT549-siLDHA1 (2nd from right).



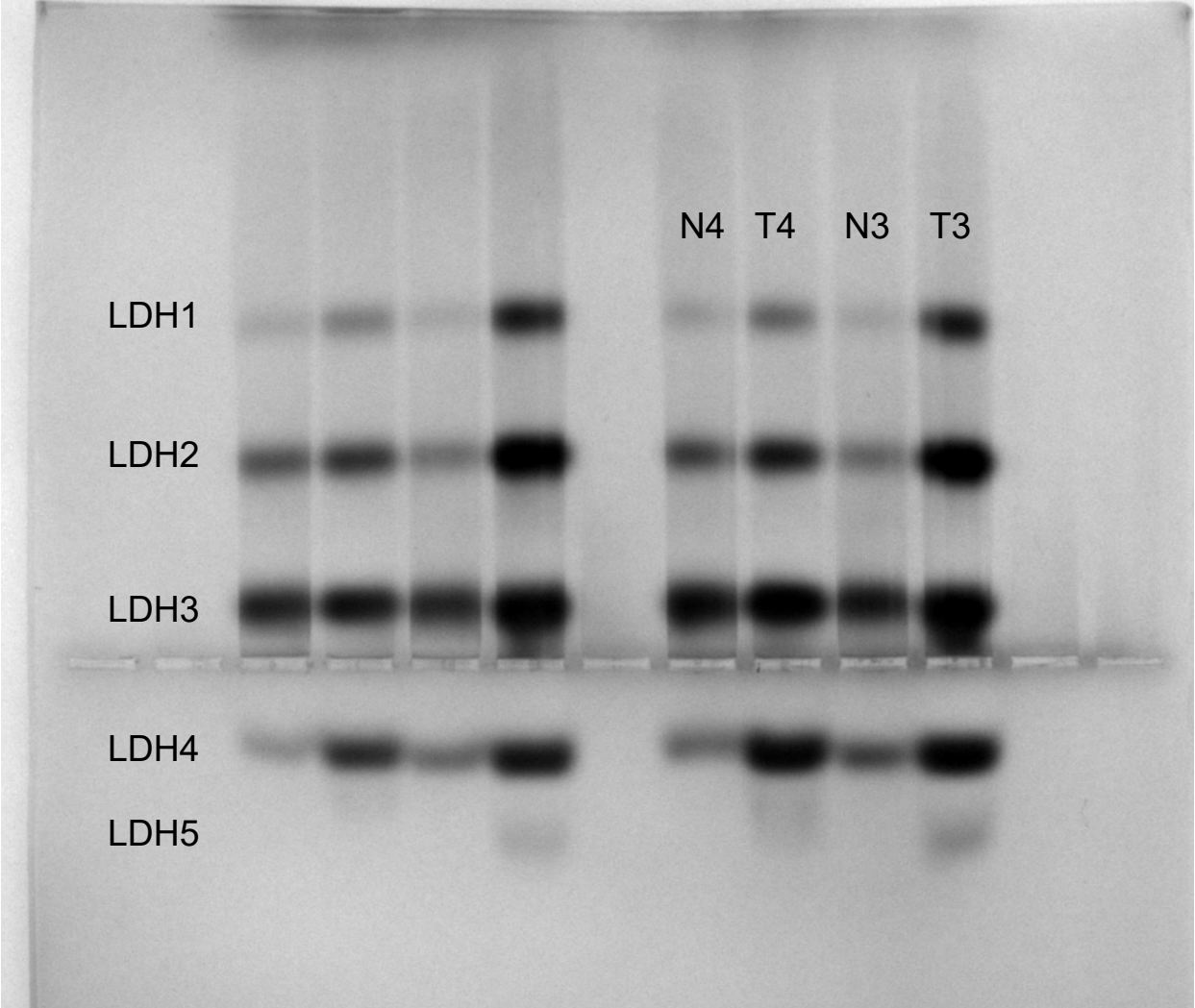
Supplementary Figure 6A: The activities of LDH isoenzymes in the BC tissues (T) and adjacent tissues (N) of the 1st BC patient are analyzed. From left to right, the sequence is LDH isoenzyme bands, N1 (1st from left), T1 (2nd from left).



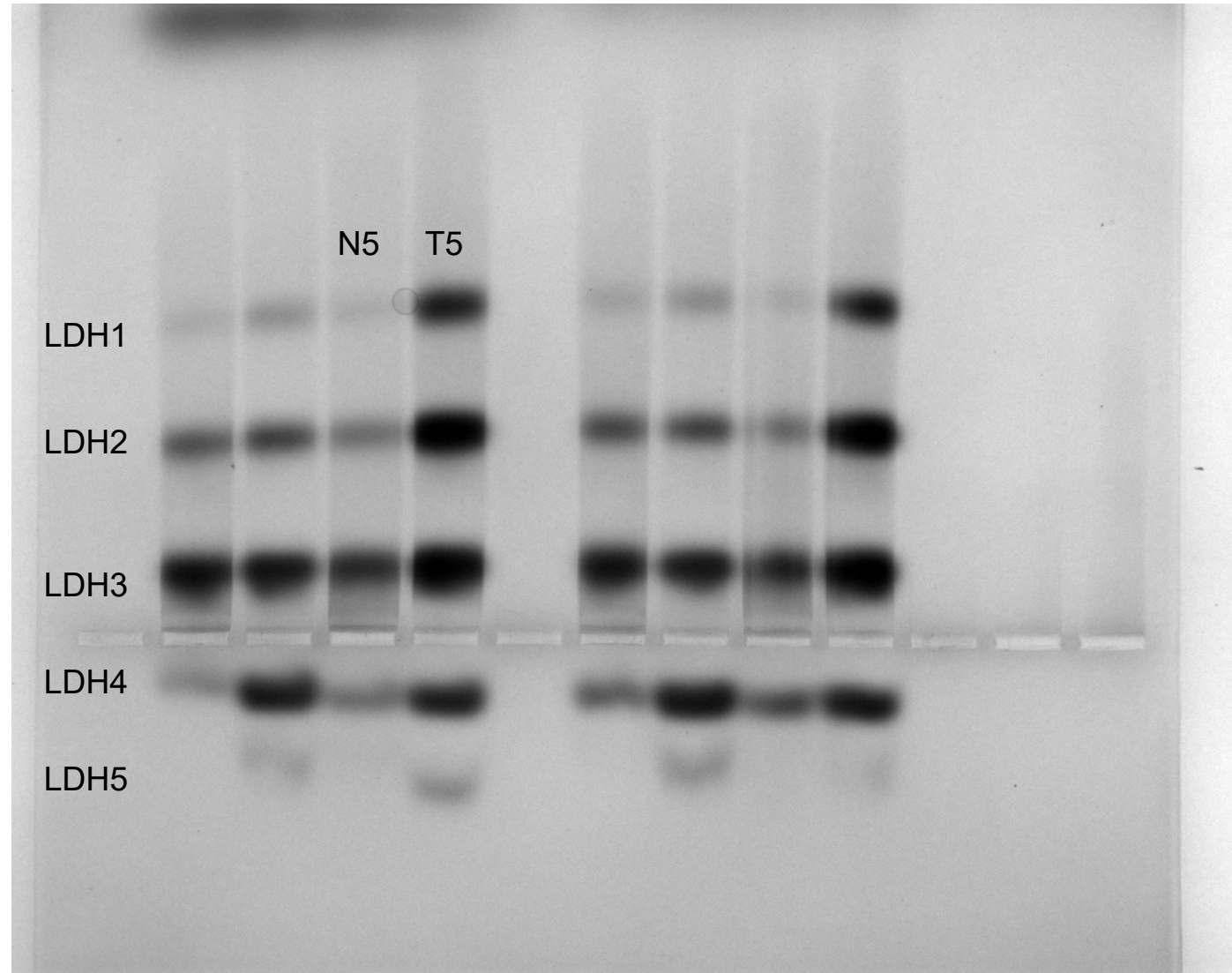
Supplementary Figure 6B: The activities of LDH isoenzymes in the BC tissues (T) and adjacent tissues (N) of the 2nd BC patient are analyzed. From left to right, the sequence is LDH isoenzyme bands, N2 (2nd from left), T2 (3rd from left).



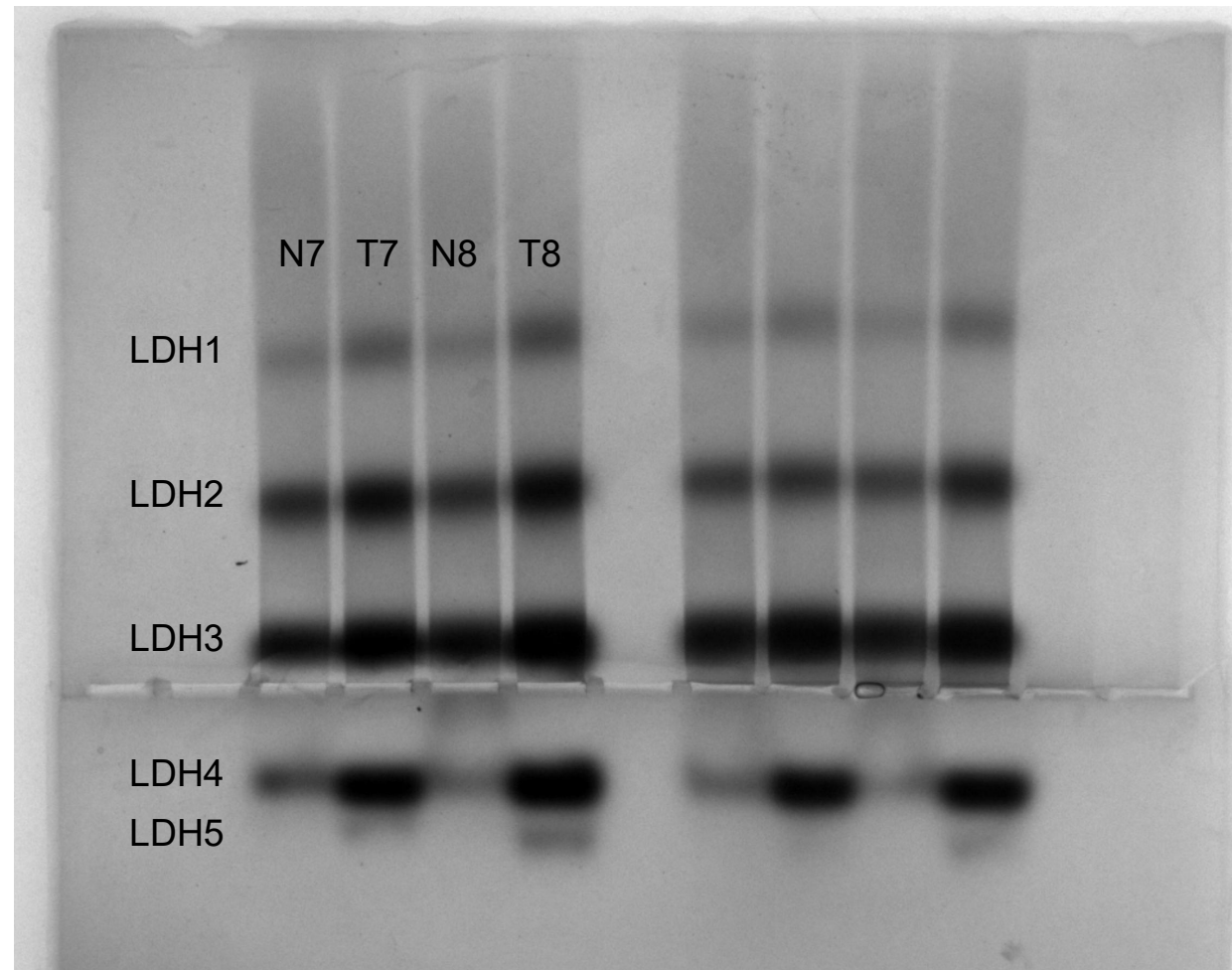
Supplementary Figure 6C: The activities of LDH isoenzymes in the BC tissues (T) and adjacent tissues (N) of 3rd and 4th BC patients are analyzed. From left to right, the sequence is LDH isoenzyme bands, N4 (4th from right), T4 (3rd from right), N3 (2nd from right), T3 (1st from right).



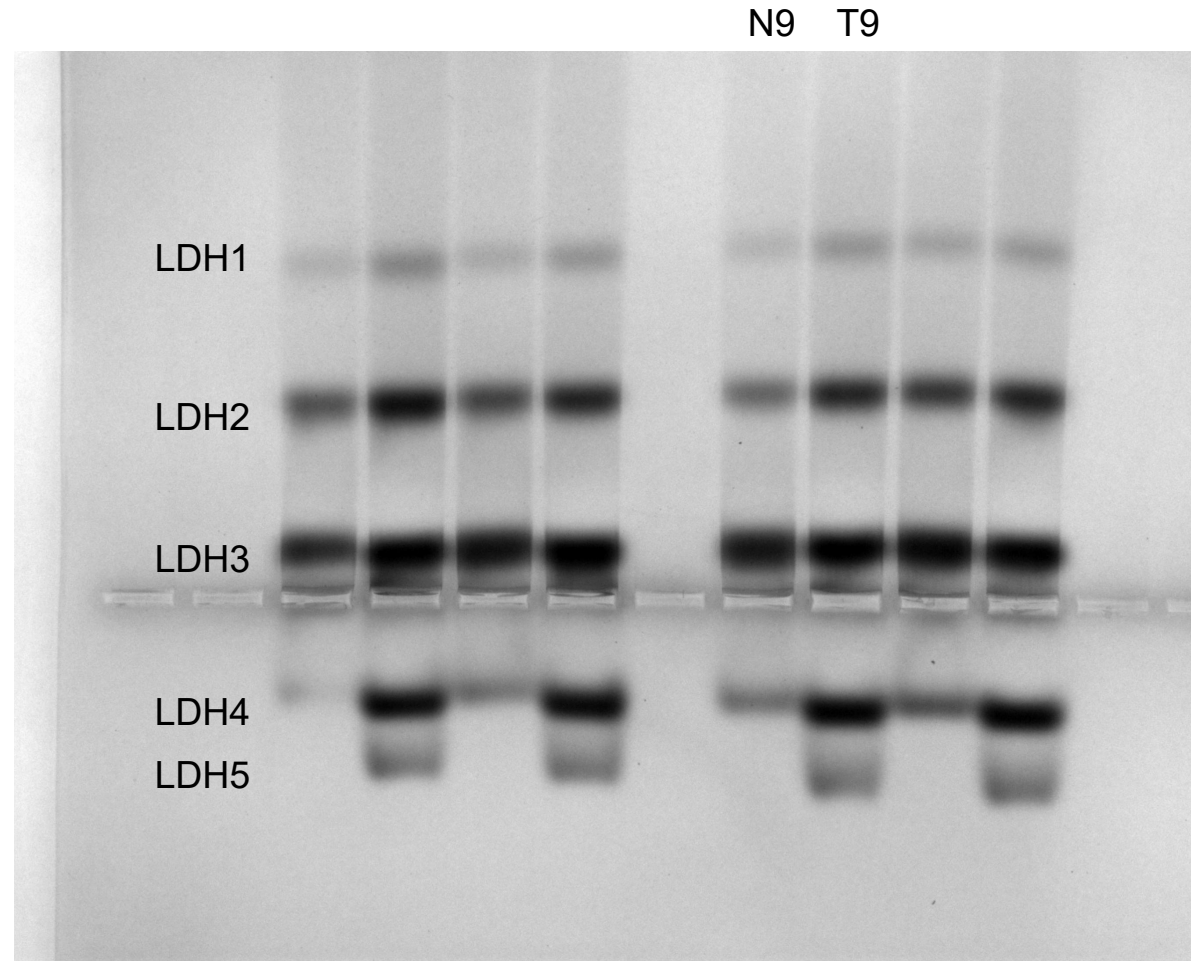
Supplementary Figure 6D: The activities of LDH isoenzymes in the BC tissues (T) and adjacent tissues (N) of the 5th BC patient are analyzed. From left to right, the sequence is LDH isoenzyme bands, N5 (3rd from left), T5 (4th from left).



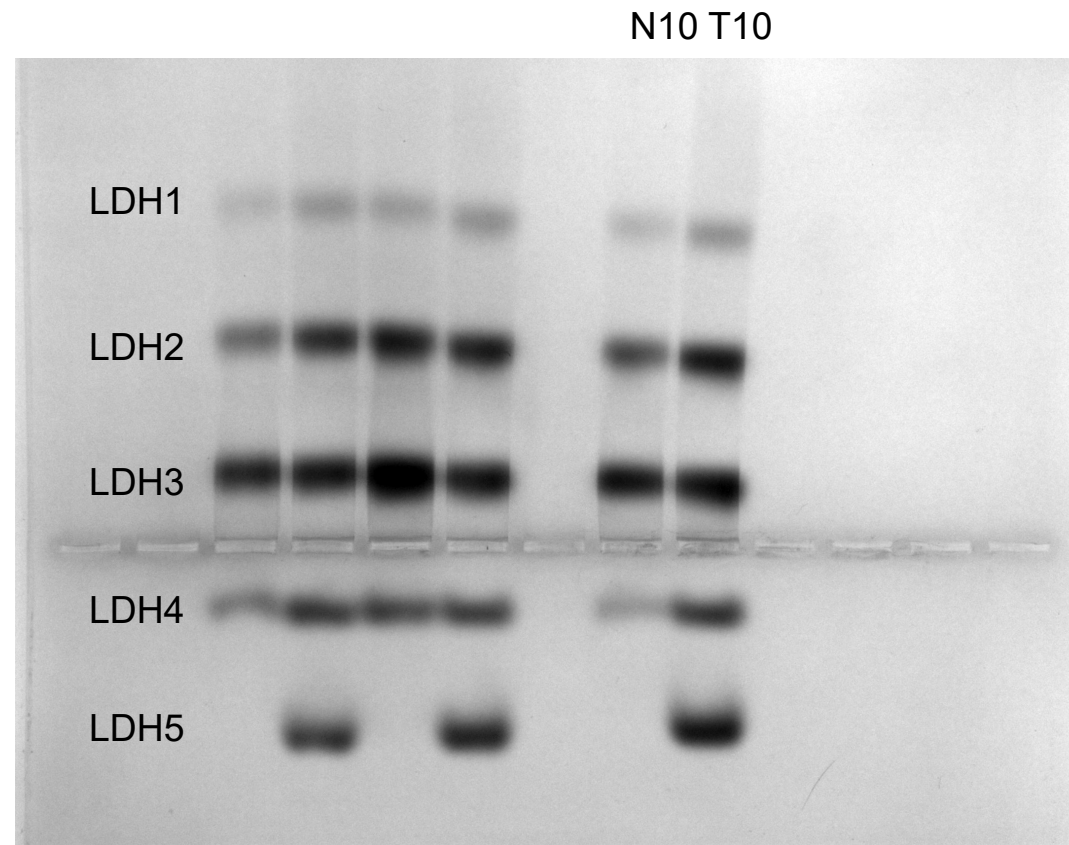
Supplementary Figure 6F: The activities of LDH isoenzymes in the BC tissues (T) and adjacent tissues (N) of 7th and 8th BC patients are analyzed. From left to right, the sequence is LDH isoenzyme bands, N7 (1st from left), T7 (2nd from left), N8 (3rd from left), T8 (4th from left).



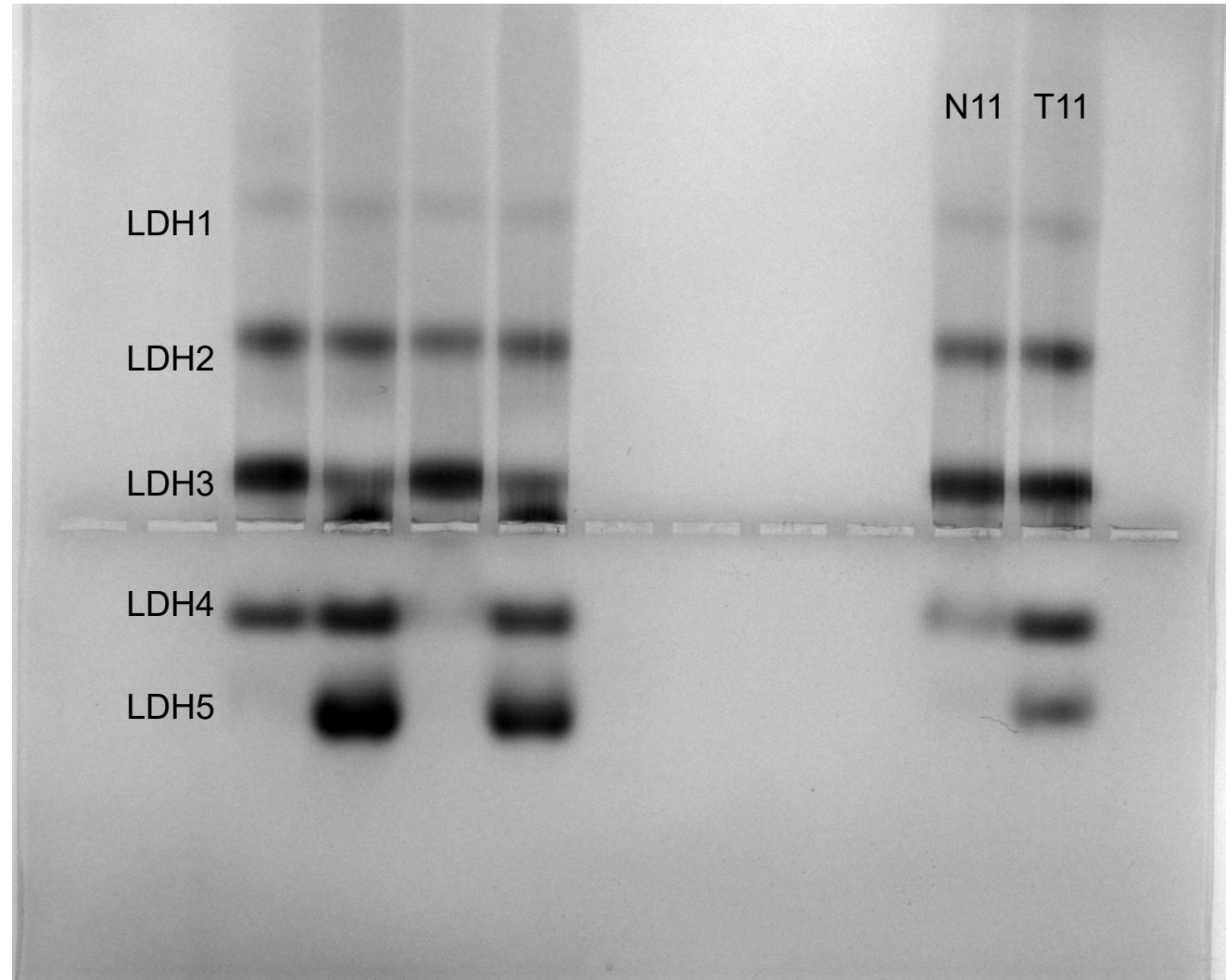
Supplementary Figure 6G: The activities of LDH isoenzymes in the BC tissues (T) and adjacent tissues (N) of the 9th BC patient are analyzed. From left to right, the sequence is LDH isoenzyme bands, N9 (4th from right), T9 (3rd from right).



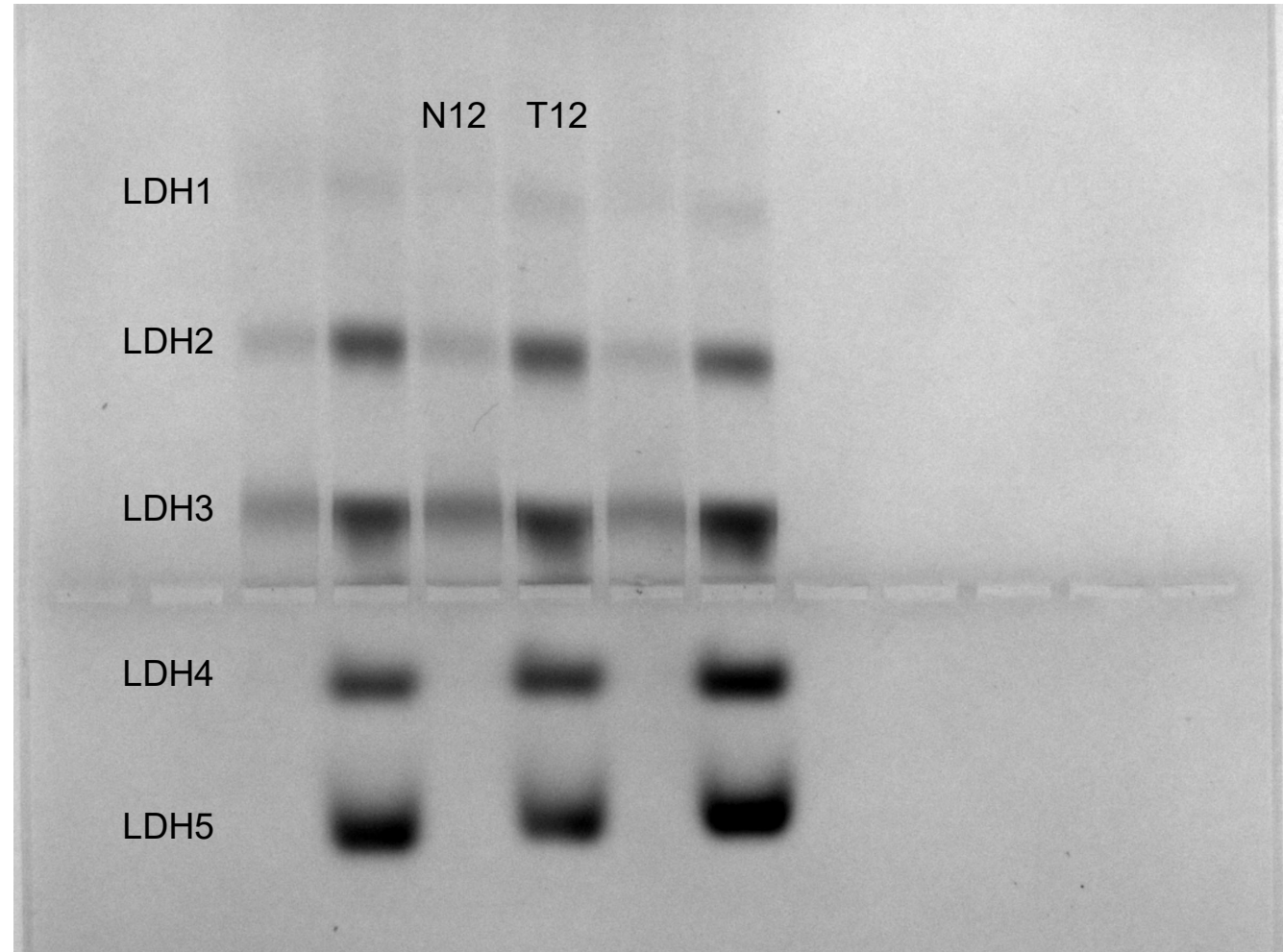
Supplementary Figure 6H: The activities of LDH isoenzymes in the BC tissues (T) and adjacent tissues (N) of the 10th BC patient are analyzed. From left to right, the sequence is LDH isoenzyme bands, N10 (2nd from right), T10 (1st from right).



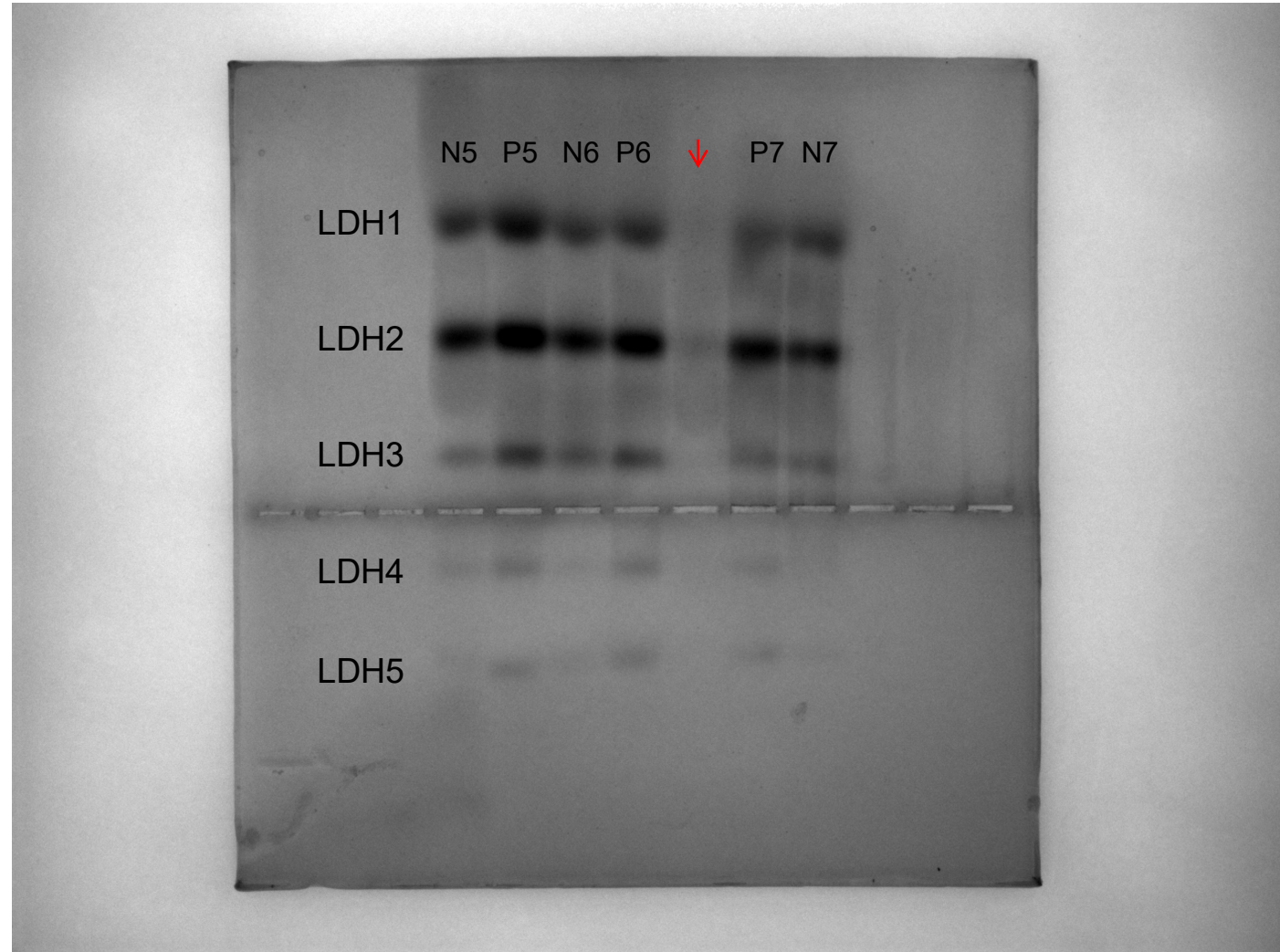
Supplementary Figure 6I: The activities of LDH isoenzymes in the BC tissues (T) and adjacent tissues (N) of the 11th BC patient are analyzed. From left to right, the sequence is LDH isoenzyme bands, N11 (2nd from right), T11 (1st from right).



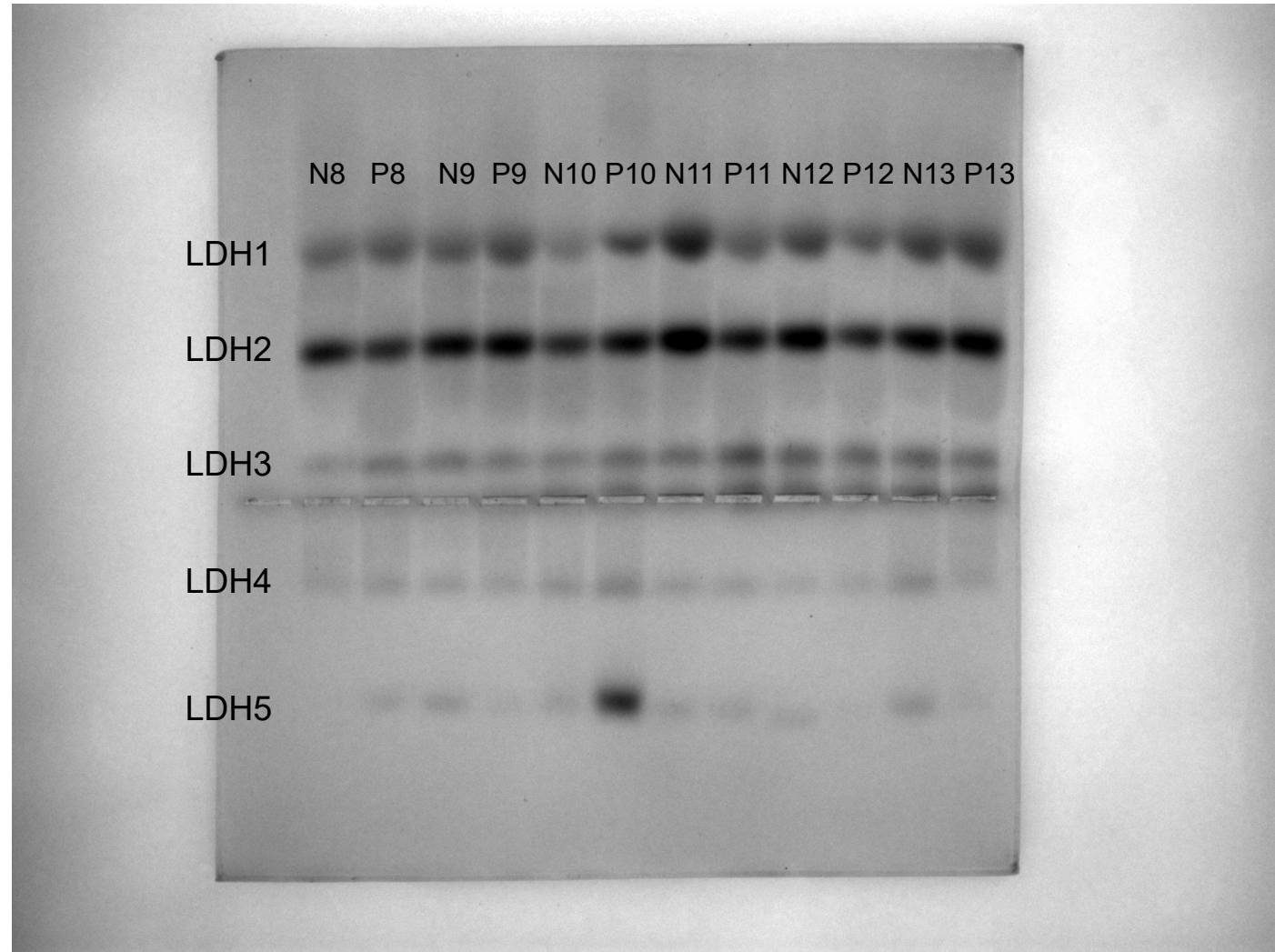
Supplementary Figure 6J: The activities of LDH isoenzymes in the BC tissues (T) and adjacent tissues (N) of the 12th BC patient are analyzed. From left to right, the sequence is LDH isoenzyme bands, N12 (3rd from left), T12 (4th from left).



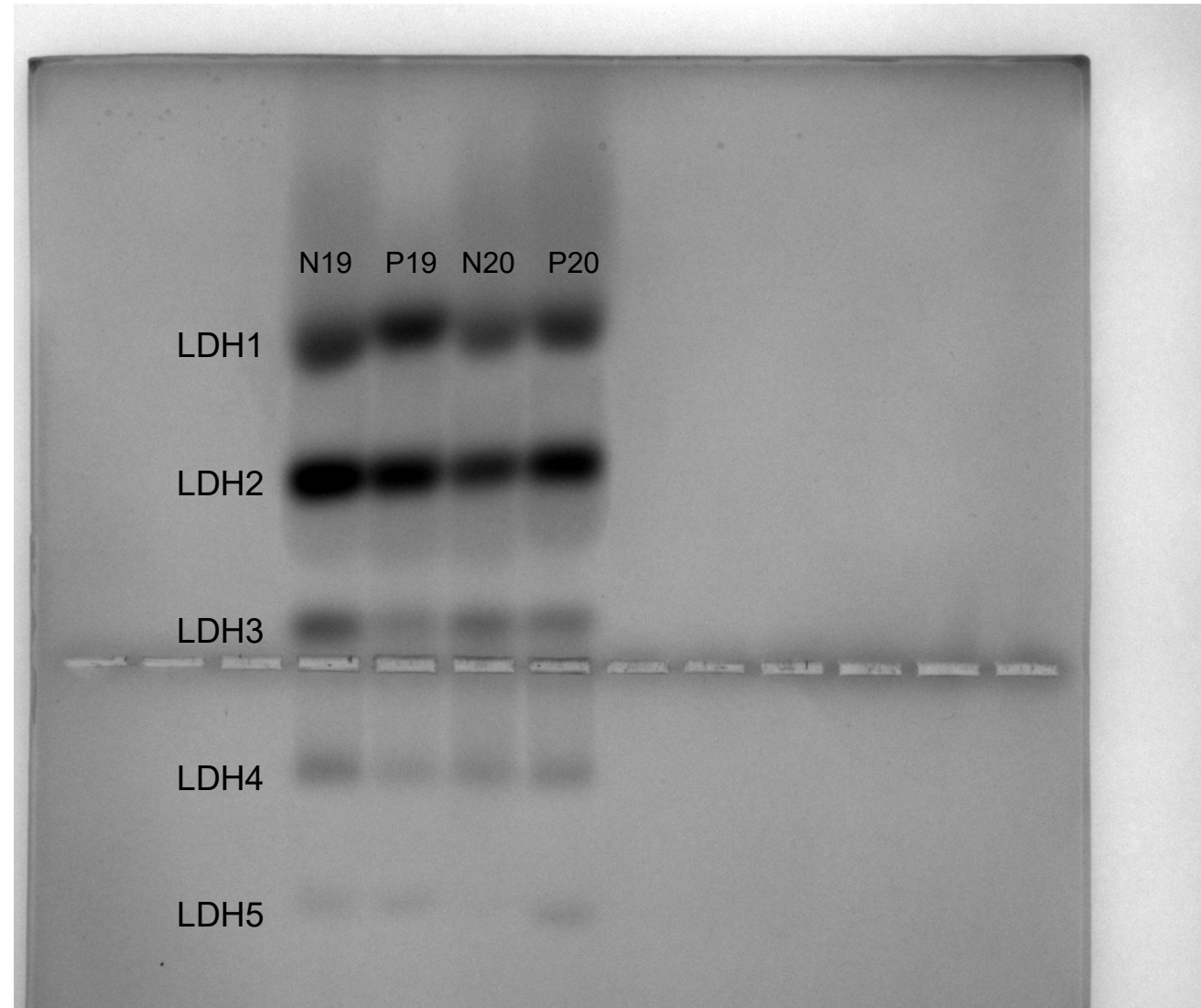
Supplementary Figure 7B: The activities of LDH isoenzymes in the serum samples of 5-7 BC patients (P) and healthy controls (N) are analyzed. From left to right, the sequence is LDH isoenzyme bands, N5, P5, N6, P6, P7, N7. (The region marked with a red arrow indicates a sample loading error in this lane)



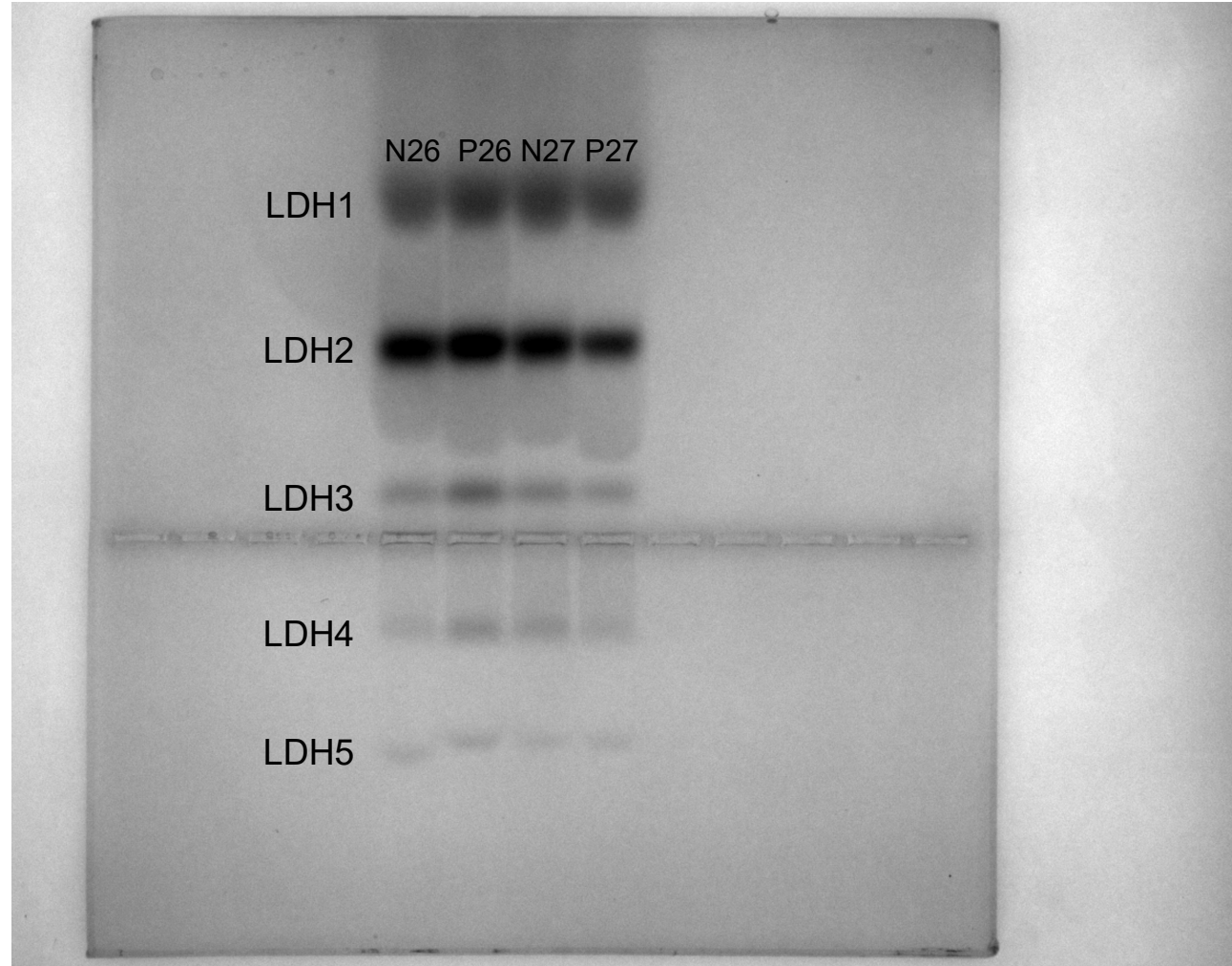
Supplementary Figure 7C: The activities of LDH isoenzymes in the serum samples of 8-13 BC patients (P) and healthy controls (N) are analyzed. From left to right, the sequence is LDH isoenzyme bands, N8, P8, N9, P9, N10, P10, N11, P11, N12, P12, N13, P13.



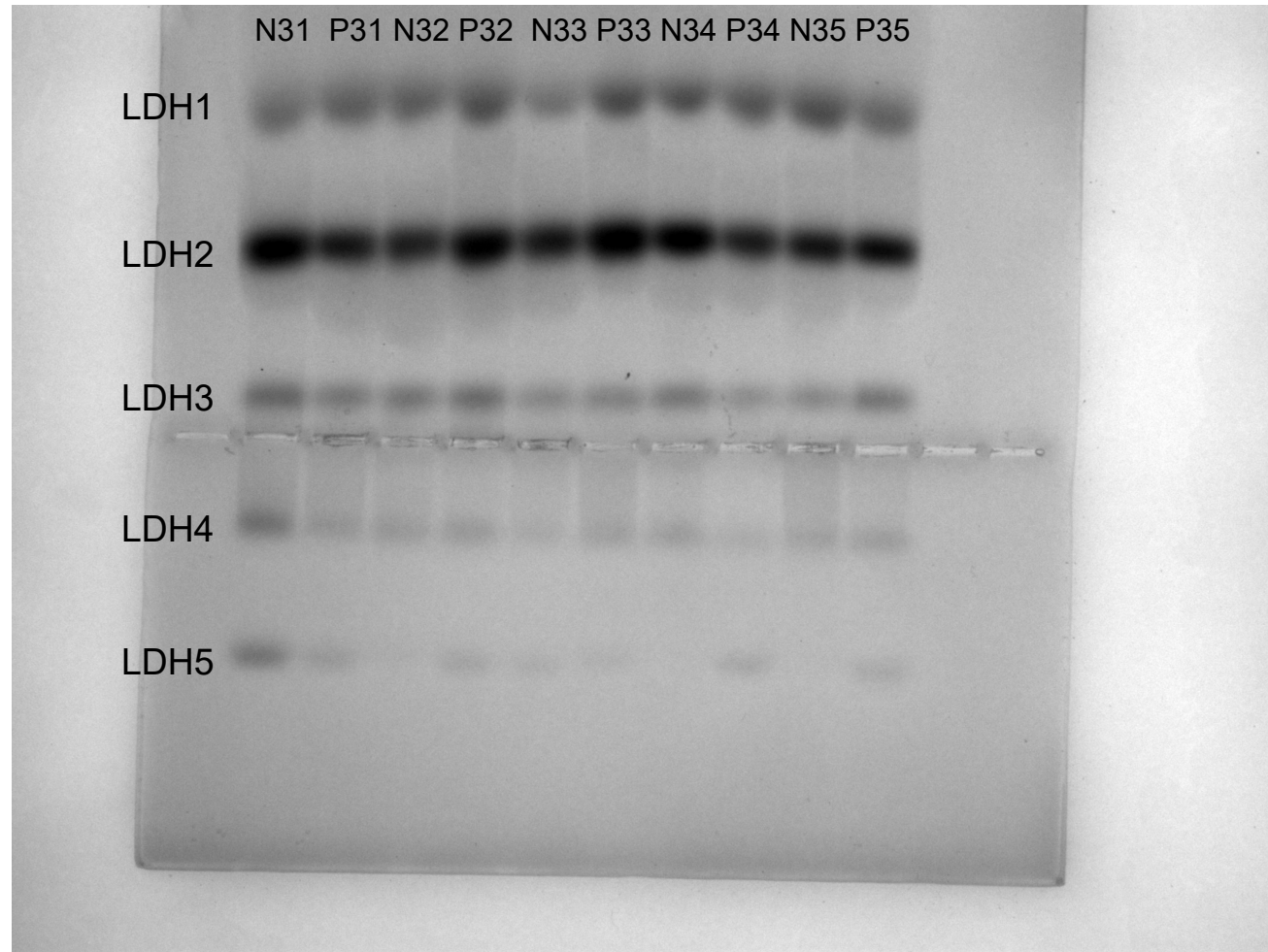
Supplementary Figure 7E: The activities of LDH isoenzymes in the serum samples of 19-20 BC patients (P) and healthy controls (N) are analyzed. From left to right, the sequence is LDH isoenzyme bands, N19, P19, N20, P20.



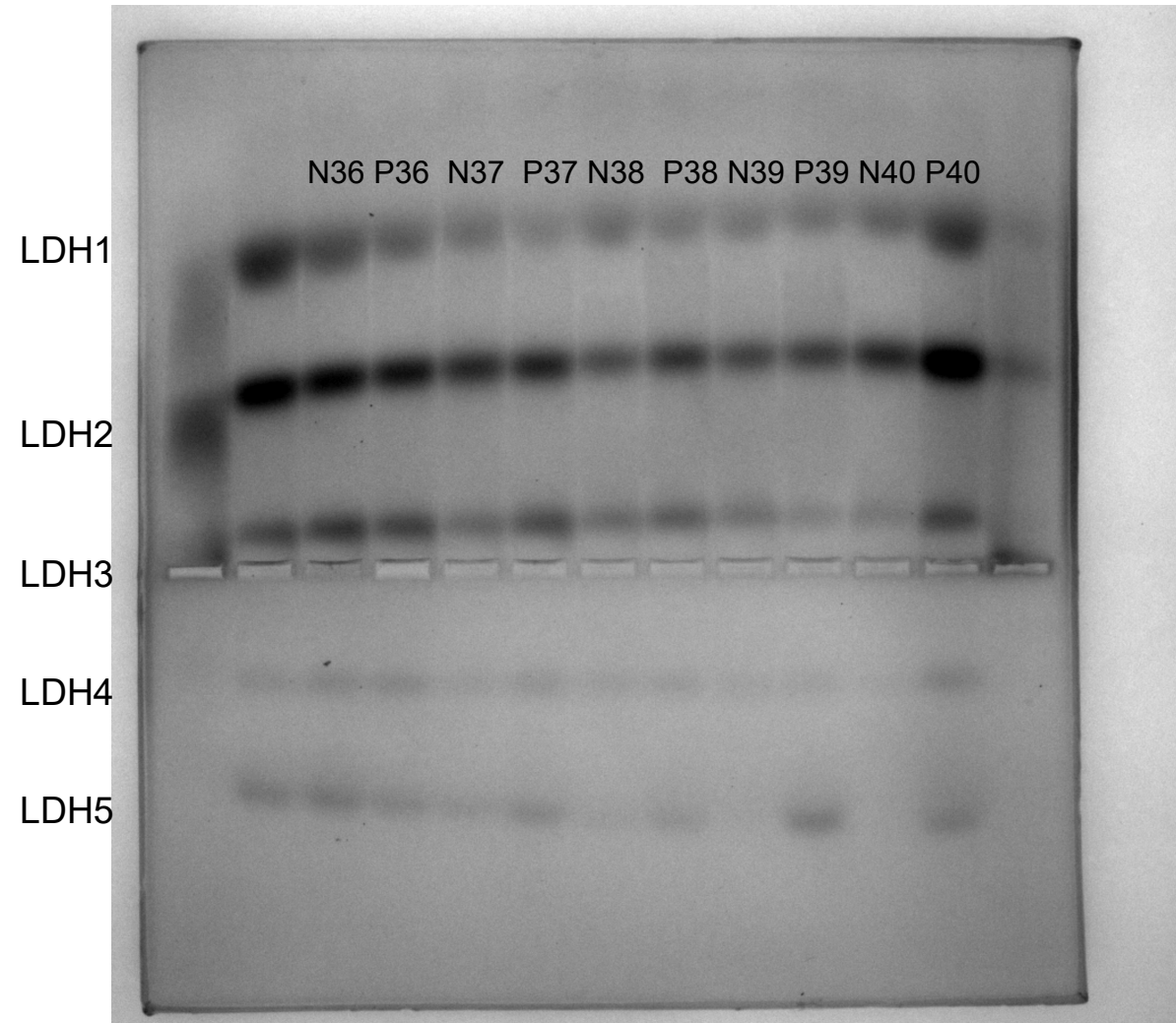
Supplementary Figure 7G: The activities of LDH isoenzymes in the serum samples of 26-27 BC patients (P) and healthy controls (N) are analyzed. From left to right, the sequence is LDH isoenzyme bands, N26, P26, N27, P27.



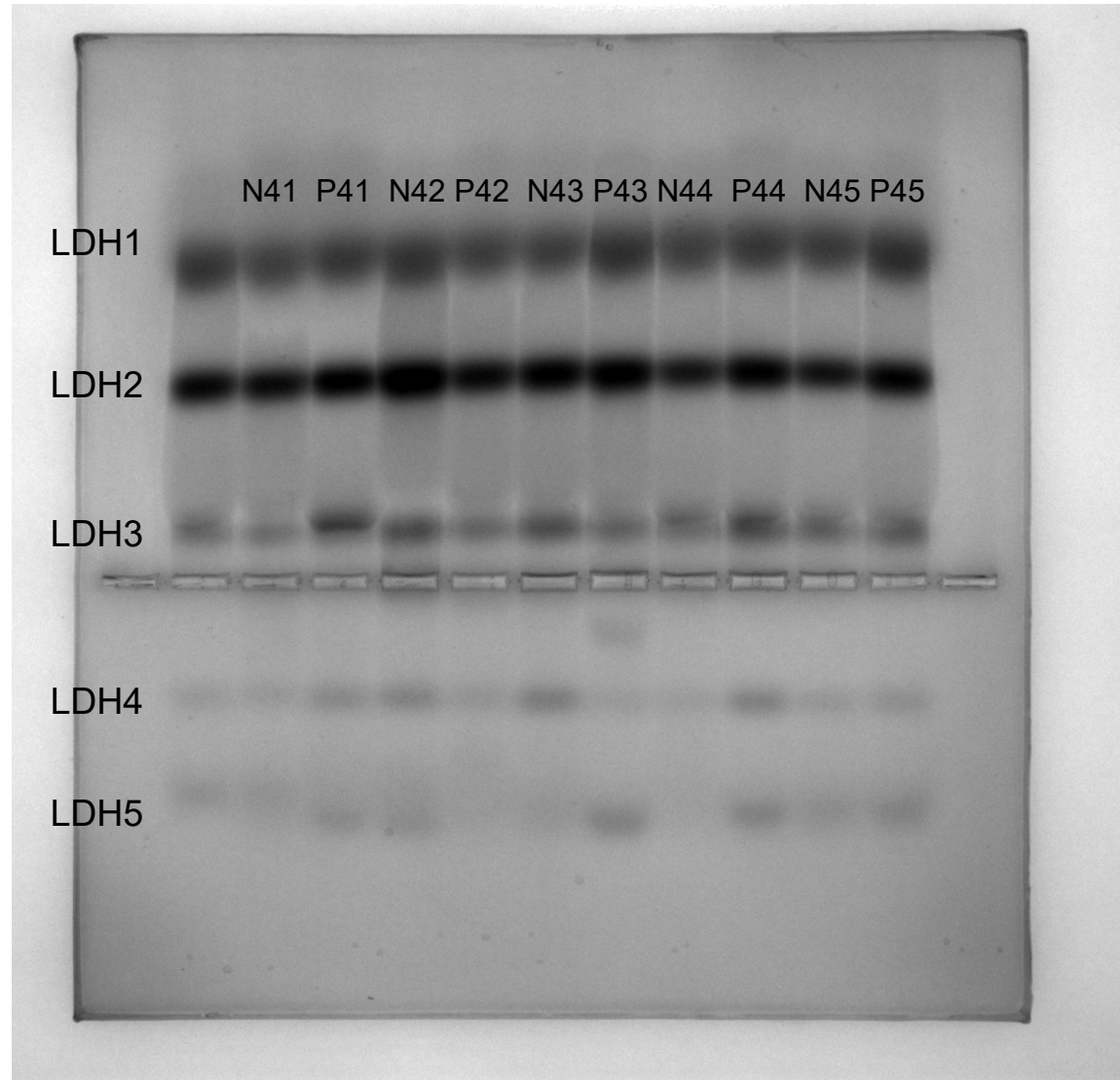
Supplementary Figure 7I: The activities of LDH isoenzymes in the serum samples of 31-35 BC patients (P) and healthy controls (N) are analyzed. From left to right, the sequence is LDH isoenzyme bands, N31, P31, N32, P32, N33, P33, N34, P34, N35, P35.



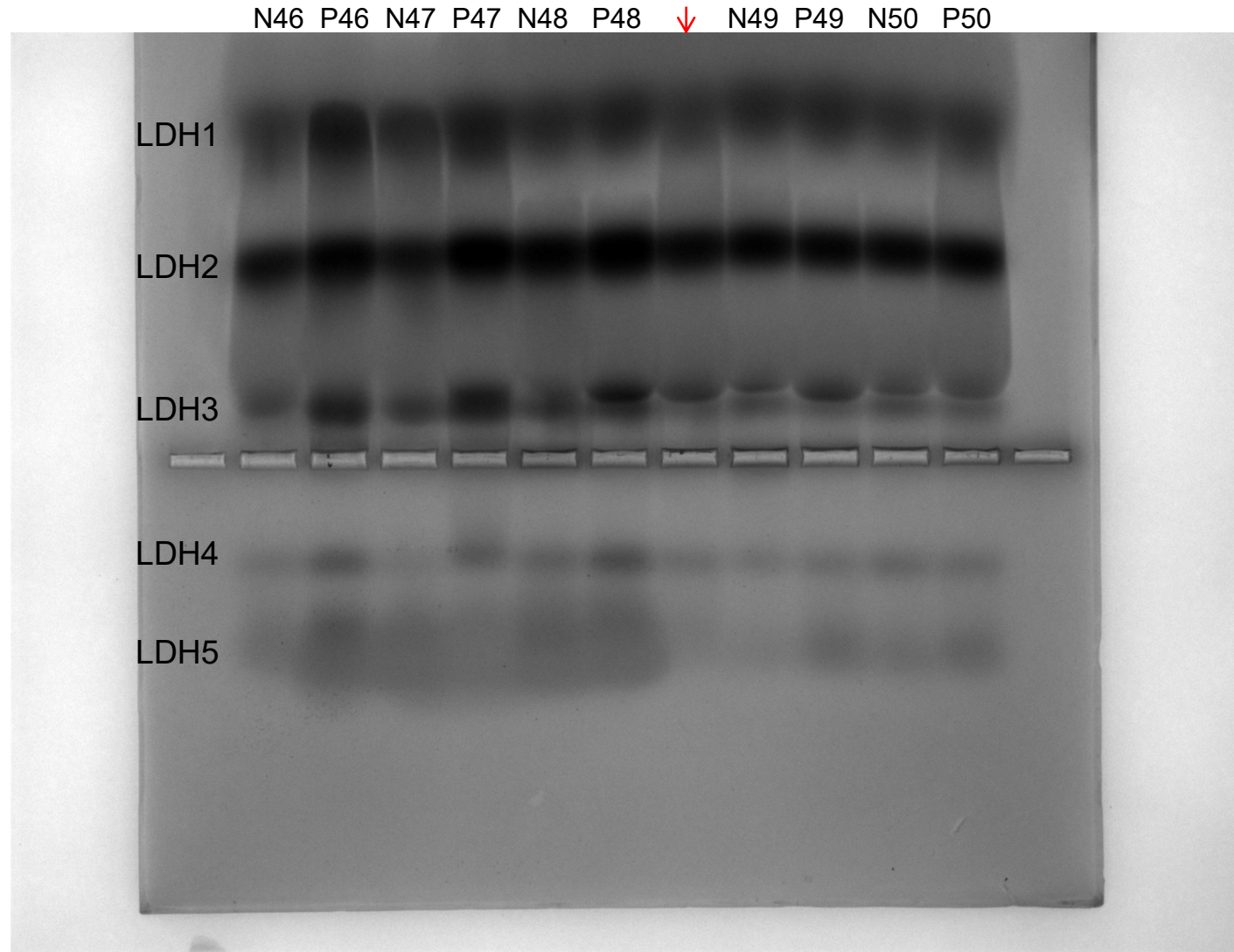
Supplementary Figure 7J: The activities of LDH isoenzymes in the serum samples of 36-40 BC patients (P) and healthy controls (N) are analyzed. Starting from the third aisle on the left, the order from left to right is LDH isoenzyme bands, N36, P36, N37, P37, N38, P38, N39, P39, N40, P40.



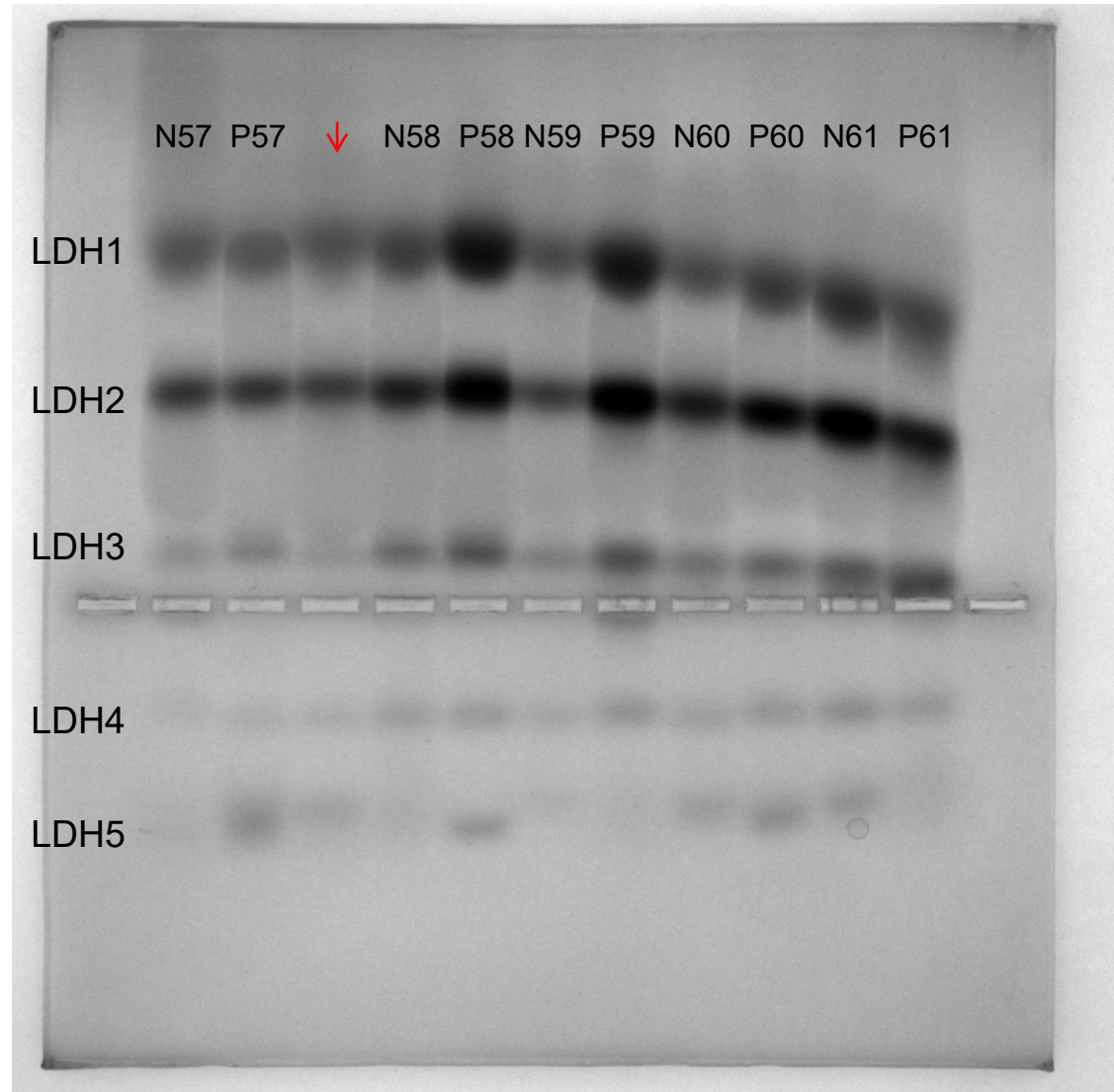
Supplementary Figure 7K: The activities of LDH isoenzymes in the serum samples of 41-45 BC patients (P) and healthy controls (N) are analyzed. Starting from the second aisle on the left, the order from left to right is LDH isoenzyme bands, N41, P41, N42, P42, N43, P43, N44, P44, N45, P45.



Supplementary Figure 7L: The activities of LDH isoenzymes in the serum samples of 46-50 BC patients (P) and healthy controls (N) are analyzed. From left to right, the sequence is LDH isoenzyme bands, N46, P46, N47, P47, N48, P48, N49, P49, N50, P50. (The region marked with a red arrow indicates a sample loading error in this lane)



Supplementary Figure 7N: The activities of LDH isoenzymes in the serum samples of 57-61 BC patients (P) and healthy controls (N) are analyzed. From left to right, the sequence is LDH isoenzyme bands, N57, P57, N58, P58, N59, P59, N60, P60, N61, P61. (The region marked with a red arrow indicates a sample loading error in this lane)



Supplementary Figure 7P: The activities of LDH isoenzymes in the serum samples of 67-69 BC patients (P) and healthy controls (N) are analyzed. From left to right, the sequence is LDH isoenzyme bands, N67, P67, N68, P68, N69, P69.

