**Table S4: List of antibodies used in the study**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Dilution used** | **Clonality** | **Company** | **Catalog number** |
| **Primary antibodies** |
| Anti-gapdh | 1:10,000 | Polyclonal | Abcam | ab22555 |
| Anti-histone 1 | 1:1000 | Monoclonal | Abcam | ab62884 |
| Anti-histone H2A | 1:2000 | Polyclonal | Abcam | ab18255 |
| Anti-histone H2B | 1:5000 | Polyclonal | Abcam | ab1790 |
| Anti-histone H3 | 1:10,000 | Polyclonal | Millipore | 06-755 |
| Anti-histone H4 | 1:500 | Polyclonal | Abcam | ab10158 |
| Anti-H3K9Ac | 1:1000 | Polyclonal | Cell Signaling Technology | 9649 |
| Anti-H3K14Ac | 1:5000 | Polyclonal | Millipore | 06-911 |
| Anti-H3K56Ac | 1:1000 | Monoclonal | Abcam | ab76307 |
| Anti-H3K9Me3 | 1:5000 | Polyclonal | Cell Signaling Technology | 9754 |
| Anti-H3K27Me2 | 1:5000 | Monoclonal | Cell Signaling Technology | 9728 |
| Anti-H4K16Ac | 1:500 | Polyclonal | Abcam | ab61240 |
| Anti-H4K20Me3 | 1:10,000 | Polyclonal | Abcam | ab9053 |
| Anti-H3S10P | 1:1000 | Polyclonal | Cell Signaling Technology | 9701S |
| Anti-gamma H2AX | 1:5000 | Monoclonal | Abcam | ab11174 |
| Anti-acetylated lysine | 1:500 | Polyclonal | Abcam | ab23364 |
| **Secondary antibodies** |
| Anti-mouse | 1:5000 |  | Cell Signaling Technology | 7074S |
| Anti-rabbit | 1:5000 |  | Cell Signaling Technology | 7076S |