

Table 1. Antibodies used for immunohistochemical study

Primary antibodies	Source	Dilution	Clone	Purpose
CK19	Novocastra	1:100	Mouse monoclonal	<ul style="list-style-type: none"> • Epithelial cell marker • Develops in some basal cells, staining pattern that is homogenous for the breast malignant tumor
S-100	Dako	1:200	Mouse monoclonal	<ul style="list-style-type: none"> • Mesenchymal cell marker • Intermediate filament which is common to a mesenchyma system cell
Vimentin	Dako	1:10	Mouse monoclonal	<ul style="list-style-type: none"> • Mesenchymal cell marker • Intermediate filament which is common to a mesenchyma system cell
Mammaglobin	Dako	1:100	Mouse monoclonal	<ul style="list-style-type: none"> • Breast cancer specific marker • Develops in breast duct epithelium, an apocrine gland and an eccrine gland epithelium of the normal skin
GCDFP15	Abcam	1:200	Mouse monoclonal	<ul style="list-style-type: none"> • Breast cancer specific markers • Develops in breast duct epithelium, an apocrine gland of the normal skin
GATA-3	Abcam	1:100	Rabbit polyclonal	<ul style="list-style-type: none"> • Breast cancer specific markers • GATA family which is the transcription factor in the nucleus • Expression abnormal for breast cancer, colon cancer
MUC4	Abcam	1:500	Mouse monoclonal	<ul style="list-style-type: none"> • Membrane-bound mucin • Participate in cell proliferation through the mutual participation with the glycoprotein Erb2/HER2 family • Expression abnormal for breast cancer, pancreatic cancer, cholangiocarcinoma, colon cancer