Figure S1. Immunohistochemical analyses of paraffin sections of breast cancers using  $H_2Mab\text{-}19$  and  $H_2Mab\text{-}77$ . Sections of breast cancers were incubated with  $H_2Mab\text{-}19$  (10  $\mu\text{g/ml})$  or  $H_2Mab\text{-}77$  (1  $\mu\text{g/ml})$  Sections were counterstained with hematoxylin. Scale bar=100  $\mu\text{m}$ .

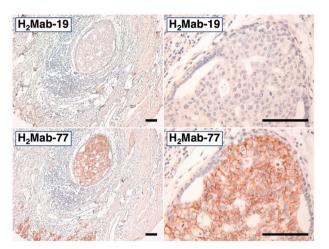


Figure S2. Immunohistochemical analyses of frozen sections of breast cancers using  $H_2Mab-19$  or  $H_2Mab-77$ . Sections of breast cancers were incubated with  $H_2Mab-19$  (1  $\mu g/ml$ ) or  $H_2Mab-77$  (1  $\mu g/ml$ ). Sections were then counterstained with hematoxylin. Scale bar=100  $\mu m$ .

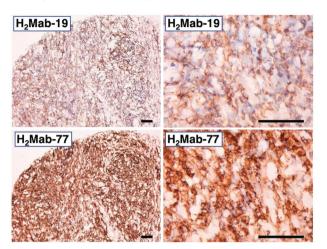


Figure S3. Evaluation of antitumor activity of  $H_2Mab-19$  in BT-474 xenografts. (A) BT-474 xenografts on day 18. (B) Resected tumors of BT-474 xenografts (day 18). (C) Body weights of the mice with the BT-474 xenografts. n.s., not significant. Scale bar=1 cm.

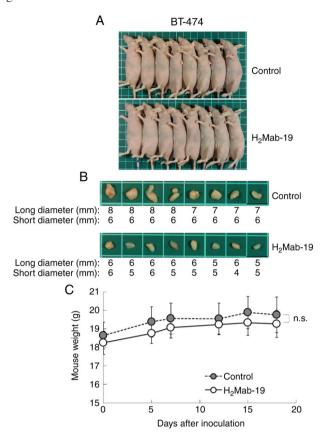


Figure S4. Immunohistochemical analyses and hematoxylin & eosin (HE) staining of resected tissues in BT-474 xenografts. Sections were incubated with H<sub>2</sub>Mab-19 (10  $\mu$ g/ml) or H<sub>2</sub>Mab-77 (10  $\mu$ g/ml). Sections were then counterstained with hematoxylin. HE staining was also performed. Scale bar=100  $\mu$ m.

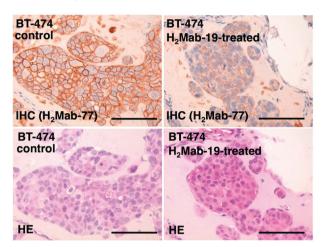


Figure S5. Evaluation of antitumor activity of  $H_2Mab-19$  in HSC-2 xenografts. (A) HSC-2 xenografts on day 20. (B) Resected tumors of HSC-2 xenografts (day 20). (C) Body weights of mice with HSC-2 xenografts. n.s., not significant. Scale bar=1 cm.

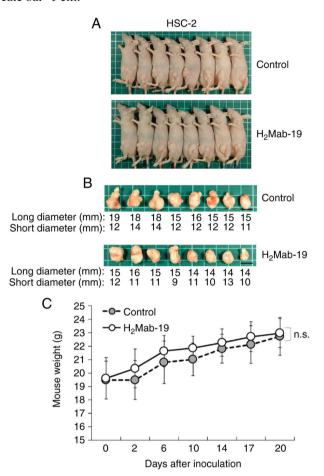


Figure S6. Immunohistochemical analyses and hematoxylin & eosin (HE) staining of resected tissues in HSC-2 xenografts. Sections were incubated with H<sub>2</sub>Mab-19 (10  $\mu$ g/ml) or H<sub>2</sub>Mab-77 (10  $\mu$ g/ml). Then, sections were counterstained with hematoxylin. HE staining was also performed. Scale bar=100  $\mu$ m.

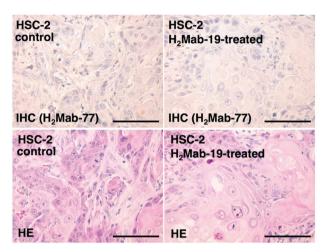


Figure S7. Evaluation of antitumor activity of  $H_2$ Mab-19 in SAS xenografts. (A) SAS xenografts on day 20. (B) Resected tumors of SAS xenografts (day 20). (C) Body weights of mice with the SAS xenografts. n.s., not significant. Scale bar=1 cm.

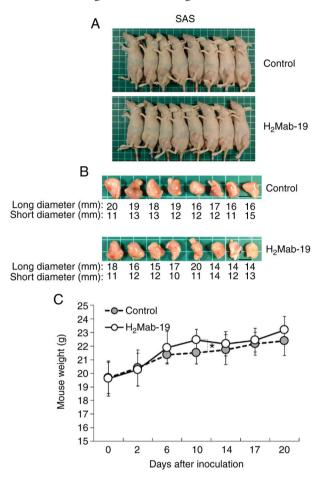


Figure S8. Immunohistochemical analyses and hematoxylin & eosin (HE) staining of resected tissues in SAS xenografts. Sections were incubated with H<sub>2</sub>Mab-19 (10  $\mu$ g/ml) or H<sub>2</sub>Mab-77 (10  $\mu$ g/ml). Then, sections were counterstained with hematoxylin. HE staining was also performed. Scale bar=100  $\mu$ m.

