

Recent patents in antibody engineering

Patent number	Description	Assignee	Inventor	Date
US 9,494,597	Novel, rationally designed human control antibodies for use in various <i>in vivo</i> and <i>in vitro</i> applications. The antibodies have well-characterized variable domains that have been designed to minimize or eliminate antigen binding without altering gross antibody structure, allowing researchers to distinguish effects that result from specific antigen-antibody interactions from other, non-specific antibody effects.	AB Biosciences (Allston, MA, USA)	Chang H-C, Hsu Y-M, Lee J-S	11/15/2016
US 9,493,574	Therapeutic immunoconjugates comprising SN-38 attached to an antibody or antigen-binding antibody fragment. When administered at specified dosages and schedules, the immunoconjugate can reduce solid tumors in size, reduce or eliminate metastases, and is effective to treat cancers resistant to standard therapies, such as radiation therapy, chemotherapy or immunotherapy.	Immunomedics (Morris Plains, NJ, USA)	Govindan SV, Goldenberg DM	11/15/2016
US 9,493,569	Structural isomers in sc(Fv)2 compositions of anti-human Mpl antibody and humanized anti-human Mpl antibody were separated, and the structural isomers obtained were cleaved at their linkers to confirm that the structural isomers are of single-chain diabody type and bivalent scFv type. The content ratio of the structural isomers in sc(Fv)2 compositions can be regulated by altering temperature, modifying lengths of the linkers of sc(Fv)2 or of amino acids in their variable regions.	Chugai Seiyaku Kabushiki Kaisha (Tokyo)	Igawa T, Tsunoda H, Koga A, Kikuchi Y	11/15/2016
US 9,493,568	Anti-epidermal growth factor (EGFR) antibodies and antibody drug conjugates (ADCs), including compositions and methods of using said antibodies and ADCs.	AbbVie (North Chicago, IL, USA)	Reilly EB, Phillips AC, Benatuil L, Hsieh C-M, Perez J	11/15/2016
US 9,493,552	Conjugates comprising a coagulating agent conjugated to an antibody, where the antibody specifically binds an extracellular domain epitope of a mammalian PLVAP protein. Also, methods of using these conjugates, such as methods of treating hepatocellular carcinoma tumors by administering the conjugates provided by the invention or compositions provided by the invention, such as pharmaceutical compositions.	China Synthetic Rubber Corp. (Taipei, Taiwan)	Kao K-J, Wang Y-H	11/15/2016
US 9,492,565	Antibody-drug conjugates against tissue factor. Also, pharmaceutical compositions comprising the antibodies and antibody-drug conjugates, and therapies and diagnostic methods for using the antibodies and antibody-drug conjugates.	Genmab (Copenhagen)	Satijn D, Verploegen S, Bleeker W, Lisby S, Van De Winkel J, Van Berkel P, Parren P	11/15/2016
US 9,487,591	Therapeutic method including administering a TIM-3 antibody or its TIM-3-binding fragment to a person who is suspected to be suffering from a blood tumor and in whom TIM-3 has been expressed in a cell fraction of bone marrow or peripheral blood or to a person who has received any treatment for blood tumor. Conceivable diseases include those diseases which can be treated through the binding or targeting of the TIM-3 antibody or its TIM-3-binding fragment to blood tumor cells.	Kyowa Hakko Kirin Co. Ltd. (Tokyo), Kyushu University, National University Corp. (Fukuoka, Japan)	Takayanagi S, Inagaki Y, Akashi K, Kikushige Y	11/8/2016
US 9,487,589	Pharmaceutical formulations comprising a one-armed, anti-c-met antibody and uses of the same.	Genentech (S. San Francisco, CA, USA)	Demeule B, Kabakoff B, Liu J, Pirots N, Zhu Q	11/8/2016
US 9,481,726	Antibody molecules, in particular, antibody molecules that bind transforming growth factor β (TGF- β), and uses thereof. More particularly, antibody molecules that bind and preferably neutralize TGF- β 1, TGF- β 2 and TGF- β 3, so-called pan-specific antibody molecules, and uses of such antibody molecules.	Genzyme (Cambridge, MA, USA)	Ledbetter SR, Hart CP, Holgate RG, Jermutus LU, Buchanan CL, Duncan AR, Finch DK	11/1/2016

Source: US Patent and Trademark Office (<http://www.uspto.gov>); European Patent Office (<http://www.epo.org>).